

TWO CASES OF UNCLASSIFIED INFECTION.

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On March 11, 1894, I attended an autopsy at the request of Surgeon John W. Ross, U. S. N., the medical officer who had had charge of the patient; but as I had no intimation as to the nature of the illness of the deceased, and as the time and place were not favorable to this end, the autopsy was not a complete one, and the records that were made beside the table were not all preserved. The weights, for instance, of the various organs removed do not appear; but my impressions, confirmed by some of those present, are against any striking abnormalities in this direction.

The following account will embrace the material contents of the official records of the case, supplemented by the observations which its unusual features led me to make:

Rigor mortis was characteristically developed at the time of the autopsy, nearly 38 hours after death. There was much hypostatic congestion, giving a very deep slaty-blue color in the dependent parts, particularly the ears and back of the neck. No overt putrefactive changes were observed, the odor being much less than ordinarily noticeable, and in no respect peculiar. The body was fairly nourished and bore, externally, no evidence of disease, save an almost inappreciable thickening from inflammation of the skin of the face just underneath the eyes.

There was a little fluid in the left pleural cavity, which showed some adhesions posteriorly; the right one was nearly obliterated by very firm adhesions of no great intrinsic thickness. The left lung showed a little vicarious emphysema about the fissure and its lower and anterior borders.

The heart and pericardium presented no abnormalities; but a paleness in color of the substance of the former with some friability was determined upon at the very close inspection demanded by the condition of the intima of the arch of the aorta. This showed three whitish, irregularly oval-shaped patches, with raised, cord-like edges. There was no actual destruction of tissue; but appearances suggested beginning atheroma. They varied from 15 to 20 millimeters in length, their breadth being one-half their length, and their long

axes were in the direction of the vessel. Near the origin of the left subclavian and carotid arteries there were several deeply reddened patches of somewhat larger size, two of which were covered with clot, which I thoughtlessly detached under the water tap. The blood in the large venous trunks was fluid and very dark in color.

The left cusp of the pulmonary valve at its anterior extremity showed a small papilliform enlargement that seemed of hemorrhagic origin. The larger cusp of the mitral valve was covered in its center for half its area by a whitish patch, which seemed to increase the opacity of the tissues without adding to their thickness. There were no evidences of endocarditis found after very careful search; certainly neither ulcerations nor vegetations.

The pathological appearances resolved themselves under the microscope into a somewhat intense capillary injection with very little inflammatory exudation, either corpuscular or fibrinous, even in places where the processes were most intense. The outlines of the elements were much obscured in what appeared like a mucoid degeneration. The bacilli hereinafter described were present in such numbers as to stain with Delafield's hematoxylin.

The stomach contained about a pint of fluid well mixed with partly digested food; it, with the rest of the intestinal tract and the other organs of digestion, appeared healthy in every respect. The liver was normal to naked eye appearances, except for an alteration in its color (more noticeable after hardening in alcohol) best described as leaden. The spleen was adherent to the anterior wall of the abdomen, and it ruptured under the force necessary to separate it. It appeared intensely injected.

The kidneys were normal in size and in all appearances, save for the high contrast afforded the too light colored pyramids by the cortical substance. That this was too great was not admitted by all four of the medical men present at the time they were examined. There was no adhesion of the capsule of either. At the upper posterior part of the right one a small retention cyst was found. It was spheroidal, about 15 millimeters in diameter, and contained only sanious fluid. Some rather large vessels crossed over its inner wall. That part of the cortex limiting it posteriorly contained several small hemorrhages, and mounted sections of it show many small perforations, some of which have resulted upon the destruction of glomeruli and of structures contiguous to them.

So few microscopical evidences of disease were present in this kidney that it was doubted whether it would show much structural alteration by two observers, who had been asked, each independently of the other, to examine it, after it had been preserved in alcohol

for some time. Unfortunately the urine in the bladder was not collected either for the estimation of its quantity, to determine in some measure the rate of excretion by these organs immediately prior to death, or for examination.

Microscopically the kidneys show a very intense nephritis, even the glomeruli participating, as their enormously proliferated nuclei show. There is some thickening of the smaller vessels, but few evidences of the existence of chronic endarteritis. Hemorrhages are rather numerous in the vicinity of the cyst mentioned. There is much degenerative change in the tubular epithelium. A few of the tubules contain hyaline casts, and some collecting tubes casts that seem made up of nuclei very little changed. No coagulation necrosis was found, and no albumin could be demonstrated in the capsule of Bowman in those sections in which a solution of it had not been used in the process of mounting the tissue (Mayer's method).

The brain was not examined. Every portion of the tissues examined, the kidney, liver, spleen, myocardium (left ventricular wall and the largest columna carnea of that ventricle), the mitral valve, the wall of the aorta, and the pulmonary artery and one cusp of its valve, was found to contain swarms of a bacillus that decolorized by Gram's method, but which stained readily with the usual aniline colors and even with hematoxylin, as has been stated. The margins of some sections of kidney and liver and the adventitia of the large vessels, contain a bacillus that stains after Gram; it may be a *post-mortem* invader—possibly it is an associated infecting agent.

The size of the former bacillus (1 to 1.1 micromillimeters broad, and 3 to 6 micromillimeters long), its tendency to occur in chains of from 3 to 6 end to end, and its staining reaction, suggest forcibly the bacillus of malignant edema, whose pathogenetic attributes vary between somewhat widely separated limits. Welch has shown the accountability of another microörganism for much mischief formerly ascribed to the bacillus under consideration, and, as I remember, in the only case directly attributed to the latter in American literature (Hoegh's case: *Medical News*, v. 57, p. 310), the presence of the organism in the tissues was not ascertained.

The following clinical history affords little information as to the nature of this infection, or the source whence it arose:

X—, sailmaker, American, aged 60½ years, a most methodical man, of correct habits and well ordered life. His dwelling in Vallejo, Cal., where he spent his time when off duty, was regarded by his medical attendant as insalubrious from general considerations merely. I have been told by a former physician of his that he had been much troubled by facial erysipelas of late years; but none of

these attacks seem to have incapacitated him from carrying on his comparatively light duties as officer of the deck aboard a receiving-ship. For two months before his death he had considered himself out of health and had lost ten pounds in weight.

On March 8th, both cheeks below the eyes were swollen only a very little, being reddened and slightly brawny. The heart was acting feebly; pulse at the wrist, 36 per minute. Urine scanty, showing no albumin by heat nor by Heller's nitric acid test. Tonics and cardiac stimulants, with an ichthyol ointment locally, were prescribed. He strongly demurred to going on the sick-list, and at length was ordered to go to his home by Surgeon Ross, who impressed upon him the necessity of good care, nourishing food, and rest. He was seen there on the next day by the doctor. His heart was acting feebly and badly, and he is noted as appearing bloodless. Further attempts at cardiac stimulation were made throughout the day. About 8:30 P. M., after a fairly hearty supper, he complained of some indefinite uneasiness, and, in the absence of his companion, who had gone for assistance, he fell from the sofa lounge, where he had been lying partly dressed, to the floor, on which he was found lifeless.

No one can regret more deeply than I the incompleteness of the work on this case, for which I had no opportunity to prepare in any way. When I found the Gram-decolorizing bacillus, I inoculated a rabbit with a bit of tissue out of 80 per cent. alcohol, in the hope that some spores might survive; and I still have the animal under observation, showing a fibrous nodule under his skin that encloses the fragment of aorta. I am sensible of many grave sins against science in detailing at such length a case open to the inclusion of so many fallacies; but I shall plead in extenuation the importance of the serious kidney lesion, which was entirely without symptoms in the life of the patient, and the presence of a bacillus that may not have been an agent of decomposition.

This indiscretion recalls the experience of an enthusiastic bacteriologist, who had found what appeared to him like anthrax bacilli in the kidney of a woman dead of puerperal septicemia. After many triumphant demonstrations, he showed it to a very eminent pathologist, who said, impressively: "Young man, you can't fool me. That's a piece of rotten kidney." My sections may show only a little of that same; if so, things seem to me to have rotted very interestingly.

The second case is that of a Chinese servant, who presented slight thickening and swelling of the right cheek. I have seen a good deal of erysipelas in mulattoes and in the Alaska Indians, who are in

many particulars much like Mongolians; and I doubted at the outset if this were an attack of that disease. He had a temperature of 102° F. for the first day only; afterward it did not exceed 99° F. Small vesicles, closely resembling those of zoster, appeared on the second day; but I was unable to satisfy myself as to the presence of micro-organisms in the serum from them, being unable to exclude extraneous matter, and to make cultivation experiments. There was slight malaise and some pain in the limbs, but no nausea. The urine was normal in all respects. A medium-sized rabbit was inoculated with serum from a vesicle and with blood and serum from the actively inflamed border of the patch of affected surface, in the peritoneal cavity, in the vein of the ear, and in the subcutaneous connective tissue. No appreciable disturbance of its health resulted.

On the third day there was noticeable abatement of the inflammation under the use of a moist dressing; on the fourth the trouble had extended posteriorly, involving the right ear and the skin over the mastoid process, extending as high as the temporal ridge. It appeared to be much less violent in character, and no other vesicles formed. This is noted to exclude drug eruptions, as the treatment was not changed from the beginning; some vesicles, moreover, were seen where the disinfectant was not applied, *e. g.*, over the right nasal bone. There was only very slight tenderness, no spontaneous pain, and hardly any lymphatic involvement.

A second inoculation of the rabbit was made as thoroughly as possible on the fourth day, but without positive result of any kind. At this stage of the case the patient refused to take any more tincture of iron, although he yielded to my professional solicitations to the extent of continuing the local application. As he was obviously convalescing, I consented to his consulting his Chinese physician, and I helped him to get leave of absence for that purpose.

He returned, well, at the expiration of his leave, and he amazed me almost beyond expression with his pidgin English account of the consultation. His respected adviser, he gave me to understand, like myself, was not quite clear in his own mind as to the exact nature of the disorder; he considered that it was unnecessary for him to prescribe, as he was convalescent, and no honorarium was desired. He was well-disposed enough to add that the man-of-war's doctor had done very well for him, difference of race considered. I disclaim the personal compliment implied in choosing to ascribe the impressive nature of the medical services rendered to the presence of the rabbit in the case. Great is bacteriology, even in its failures!

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CASES OF SKIN GRAFTING ACCORDING TO THIERSCH'S METHOD.

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You are all acquainted with Thiersch's method of skin grafting, which needs no further elucidation or praise on my part. You have heard the subject discussed at former meetings, so that I need not go into details concerning the history of the method, the reasons why it has supplanted former methods, nor give an elaborate description of the operation itself, except that I shall explain small deviations pursued in the cases below, as they are at variance with the methods expounded to this society at former meetings.

I would have hesitated about reporting so few cases, were it not that there are among them two identical with a case reported at your last meeting as "Idiopathic Gangrene of the Scrotum," where, it seems, castration, followed by suture of the skin, had been suggested to rectify the defect. This would have been a serious surgical error, and it can be of no harm when direct attention is called to the treatment of such cases.

The preliminary preparation for a skin-grafting operation consists in the disinfection of the region, usually the thigh, from which the graft is to be taken; shaving of the skin is necessary, in order to procure a perfect aseptic graft. If we are about to graft on an old chronic ulcer of the lower extremities, then it is absolutely sufficient, after having disinfected the immediate neighborhood to scrape off the granulations with a blunt curette; the removal of the granulations leaves a fresh, bleeding, and aseptic surface, so that preliminary preparations for the disinfection of the ulcer during the days immediately preceding the operation, become entirely superfluous. If it is necessary to remove the indurated edges with a knife, although a curette will do this work, as a rule, just as well and with much less bleeding, the Esmarch ligature may be applied.

If the ligature is used we should not apply our graft to the surface which is to be grafted until we have controlled all hemorrhage, especially of small spouting arteries. In order to accomplish this result, the wound should be covered with lint gauze, which should be pressed to the prepared surface, most conveniently by pressure with the hands. Then the Esmarch ligature is loosened, and after a short time the wound is relieved of the compression by the removal of the gauze. Usually the bleeding has now stopped, except that from small arteries, the latter being caught with hemostatic forceps and twisted; should this not suffice, catgut ligatures may be applied.

If this procedure is not followed out, we may have a small hemorrhage beneath the skin grafts after removal of the Esmarch, followed by suppuration and necrosis of the skin grafts. The ligature may now, as a rule, be laid aside, except in cases where the patient is very restless during the anesthesia, or vomiting. Under any of these circumstances bleeding invariably takes place, either directly from the blood vessels, or as a transudation from the surface of the wound, thus jeopardizing the existence of the graft. In such cases it is advisable to replace the Esmarch ligature and keep it in position until the grafts have been applied and the extremity bandaged somewhat tightly, in order to exert compression upon the grafts and the surface with which they come in contact.

Where old cicatrices are to be removed and replaced by skin grafts the hemorrhage is often very profuse and many ligatures are necessary. Here it is advisable, after having removed the cicatrix and ligated the vessels, to let the surface granulate, and several days afterwards to cover the surface with skin grafts. We are then sure that the ligatures will cause no disturbance and that the muscular or subcutaneous tissues have become covered with healthy, fresh, and flat granulations. If the wound has in the meantime been treated aseptically or antiseptically, the grafts may be applied directly to the granulations, to which they will adhere, or we may first scarify the surface and then apply the grafts, having stopped the bleeding by pressure upon the surface with lint gauze.

Both surfaces having been prepared, the skin is removed by means of a razor. Several methods have been proposed to prevent the slipping of the skin of the thigh from under the hands of the assistant, whose duty it is to keep it stretched while the grafts are being removed. Dr. Dunham, in the *Post-Graduate*, has suggested the wearing of rough gloves which had been sterilized beforehand, and Dr. Mixer has constructed special instruments for this purpose. These consist of a fenestrated curved plate, having its under surface lined with sharp needle-points to keep the plate in place on the thigh to which it had been adapted. A roller is used for the purpose of pressing the skin between the edges of the opening in the plate. There is also a knife resembling an amputating knife and with a specially constructed handle.

Should the skin not be stretched sufficiently between the hands of the assistant to prevent it from following the side movements of the razor, I use the ulnar side of my left hand between the razor and the assistant's hand below, merely pressing the skin horizontally and at the same time distally. The razor is kept moist by dropping on it a 1-per-cent. salt solution, which prevents the graft from being torn.

I prefer to apply the grafts immediately to the wound, rolling them off the razor and spreading them out by means of blunt sounds, the grafts overlapping the edges of the wound, and of one another. Care should be taken that air be entirely excluded from between the grafts and the wound, since it often happens that on some spot the air is retained as a large bubble, caused by the skin being rolled off the razor unevenly. This retention also takes place when the granulations are not flat, but uneven, and prevents the direct contact between the graft and the wound. This portion of the graft generally becomes necrotic. The air is removed by gently pressing upon the graft with a sound toward the periphery.

When this has been accomplished, the graft is dusted with iodoform, gauze applied, and the Esmarch, if still in position, removed. Dr. McBurney first suggested that the Esmarch ligature be retained, exerting light pressure, for $1\frac{1}{2}$ hours after the operation. This is entirely unnecessary, for the compression exerted by the dressing and bandages is fully sufficient to prevent any bleeding, and to keep both graft and wound surface in direct contact, adhesion between the two taking place similarly to that of any wound healing by first intention. Besides, it should not be forgotten that all hemorrhage has been controlled before the graft was applied.

As in the dressing of most wounds, here also the dry dressing with aseptic material is preferable. Some surgeons are accustomed to dress with wet lint gauze, moistened in a salt solution, and to drop a fresh solution upon the dressings of the wound every few hours, following the transplantation. This is absolutely unnecessary and superfluous, for the life of the grafts depends upon their contact with the surface of the wound, and upon the plastic and serous exudation between them.

If anything happens to prevent these conditions, the grafts are doomed and the salt solution can be of no use toward accomplishing such adhesions. For this reason I do not see why the grafts should be protected from pressure by specially devised contrivances, as has been lately suggested with a claim of originality; in some cases it is even contraindicated. The operation is of itself extremely simple, requiring only a knack; the simpler the incidentals of the method, the better the chances for its success.

If it be desired to cover the grafts with a moist dressing, it is advisable to moisten the dressings with a 4 per cent. boracic acid solution, as has been suggested, which does not become foul after a space of 3 to 4 days, as the salt solution usually does.

This dry dressing need not be removed for 6 or 7 days, unless the wound was in especially vascular tissues or the hemorrhage not

easily controlled. In such cases it is better to remove the dressings after the second or third day; and wherever a slight hemorrhage has taken place under the graft, as indicated by dark-blue streaks and, perhaps, by the raising of the skin, an incision with the scissors should be made, to prevent the suppuration which will ensue from destroying the whole graft.

The skin of the thigh heals most quickly under the application of the oxide of zinc salve. I have seen a great many cases treated in this way, and without any failures where these methods have been adhered to. The following cases are reported in illustration:

J. K—, 45 years of age, saloon keeper; corpulent, weighing about 250 pounds, of nervous temperament, had been suffering from a stricture of the posterior part of the urethra, for several months before entering the hospital. Twelve days before his admission, August 11, 1893, the scrotum began to rapidly grow larger, with great pain and fever. Three days afterward discoloration and gangrene set in, patient lost appetite, and grew weak. The temperature was 102° F. The entire front half of the scrotum sloughed off, leaving the testicles denuded, the edges of the skin remaining, ragged, discolored, foul-smelling; the testicles covered with foul-smelling purulent matter. The whole was well disinfected, edges trimmed off with scissors and covered with a moist antiseptic dressing. Internal urethrotomy was performed. The wound was dressed daily. In a short time a line of demarcation formed, and healthy red granulations appeared. After 4 weeks the wound, as well as the denuded testicles, were entirely covered with fresh, healthy granulations. Transplantation of skin from thigh in the manner just described was carried out, and there was no disturbance in the healing process. Patient was discharged shortly afterward as cured.

M. A—, 25 years, had been troubled on passing his water for some time; stream diminished and spiral shaped. Three days before entering the hospital he experienced a sudden pain in the region of the bladder, and found himself unable to urinate as freely as formerly. The scrotum began to swell, became reddened and painful. There was fever and several chills. On examination, patient was found to be weak and anemic; pulse, 80 to 90; temperature, 105° F.; scrotum red and swollen, several spots already gangrenous; poster stricture of urethra. Gangrenous parts of scrotum removed, the whole disinfected and covered with moist antiseptic dressings. Internal urethrotomy. The following days the temperature ranged between 101° and 102°. A line of demarcation formed; the testicles, now entirely denuded of skin covering anteriorly, and covered

with ill-smelling, foul pus. Ten days after entrance severe pains were felt in the region of the right inguinal canal, the parts being swollen and painful to the touch. An abscess formed in the canal, which was opened and drained. After 4 days the temperature fell to about the normal. Under stimulants, iron and quinine, improvement of the general condition of the patient followed, with strong reaction in the wound. After two weeks the drainage tube was removed from the inguinal canal. Two weeks later the abscess healed, and the testicles were covered with healthy red granulations. The granulations were scarified and skin grafts from the thigh applied, after stopping the bleeding resulting from scarification by pressure with gauze. There was no disturbance in the course of healing. Patient was discharged, cured, 8 weeks after entering the hospital, and 2 weeks after skin grafting.

These are the two interesting cases to which I wished to call attention, and which prompted the writing of this paper. It was only necessary to wait until strong reaction had set in and until the wounds were covered with healthy granulations; the defect was then easily removed. The scarification of the granulations in the second case could have been dispensed with.

I have also had several cases of chronic varicose ulcer of the leg, treated in the same manner. This seems to be the quickest, best and most rational way of treating the ulcers. Very frequently, on removing the dressings on the second or third day after the operation, one is surprised to see that the wound appears to be entirely devoid of the grafts which have been applied. This is not the case, however. It is only the outer or upper layers of the epidermis which have sloughed off. After 4 or 5 days these have been reconstructed, and in place of the former ulcer we have a soft, pliable skin of reddish tint.

Syphilitic ulcers may also be treated in this way. I have operated on one case where there were two ulcers on each leg, over the tibiae. The results are better than antisyphilitic treatment alone could achieve, for the healing process is quicker and leaves no scar.

Two cases were for keloid of old scars, one of an old scar on the cheek of a boy 15 years of age, the other on the backs of the hands of a girl 18 years of age. The scars and keloid were removed, together with considerable healthy skin from the neighborhood, and the surface grafted. In the case of the boy the results were only partially successful, for some time afterward small keloid formations appeared on the edges of the graft. The case of the girl gave us considerable trouble. The backs of both hands were covered with scars and keloid from burns received at a gas explosion. The scars

extended downward to a considerable depth, and in some places were slightly adherent to the subcutaneous tissues. The bleeding was considerable, and during anesthesia the patient coughed continually. The Esmarch was used, the bleeding stopped for a greater part through pressure with gauze; but it was necessary to ligate a few spouting arteries, which gave considerable trouble afterward by the ligatures sloughing out, and also by secondary hemorrhage under the grafts.

This inconvenience could have been avoided had we let the fresh wound granulate first and grafted later. Though the skin grafting had been successful, keloid formations again appeared even where the edges of the grafts came in contact with one another. A considerable part of the covering of the backs of both hands were again excised and grafted a third and fourth time; but each time keloids formed again, to be sure, finally, only as small red lines on the edges. The patient being more than satisfied with the results, we desisted from making any more attempts. I might add that even on the thighs, from whence the grafts were taken, keloids afterward formed; there being a general constitutional predisposition to keloid formation.

Two cases of laceration of the scalp, with loss of the skin, were also treated in the same manner; in one of the cases a flap 2 inches in length and about 1 inch in width had been taken from the side of the head for the plastic formation of an ear, which had been torn off in a runaway accident. The defect on the scalp was grafted, the grafts adhering readily and easily to the periosteum of the cranium.

Three cases of ulcerated surface of the stump of an amputated femur, in one of which the anterior flap had become gangrenous, were treated in the same manner and with the same successful results.

200 Stockton street.

A DISCUSSION OF THE LINES OF TREATMENT OF PELVIC ABSCESS.

By ALBERT H. TAYLOR, M.D., Assistant Demonstrator of Anatomy, Cooper Medical College, San Francisco.

Read before the San Francisco Medico-Chirurgical Society.

The tendency of writers on pelvic diseases within the last few years seems to be toward generalization, and where, ten years ago, we had several terms to indicate the exact location of an inflammation about the pelvic organs, to-day we have one general term.

Schroeder, in his work on "Diseases of the Female Sexual Organs," published in 1875, speaks of a perimetritis or pelvic-peritonitis, and a parametritis or a connective tissue phlegmon, giving the lines of differential diagnosis. But, as a solace to the less skilful,

says it is difficult to make the diagnosis with absolute certainty during life, and even *post-mortem* it may be difficult to discriminate between the two diseases.

It has been proven, clinically and pathologically, that an inflammation rarely if ever confines itself to a particular tissue within the pelvic cavity, although it may occupy a particular locality. Thus, we may have an inflammation of the cellular tissue about the cervix uteri, or in Douglass' pouch, nearly always secondary to a peritonitis, rarely as a direct infection coming from the lymph channels passing through. As peritoneum and connective tissue are so intimately connected, inflammation of one almost invariably involves the other. The same may be said of an inflammation involving the fallopian tube and ovary; hence, the later works on gynecology use the general term pelvic inflammation, as the treatment is common.

As in all inflammations, the termination may be reached by several routes, namely: resolution, organization, which means the establishment of vascular supply to the resulting exudate by which its breaking up is stayed, and suppuration or the formation of an abscess. Nature is always on the alert when this sort of warfare is being waged and soon has the enemy a close prisoner, where he is destroyed at her leisure. As our aim should be to assist nature at all times, and in this, above all times, is the hand of the surgeon needed, as it has been very truly said that a pelvic abscess should never be given an opportunity to open itself.

The question is, how can the pus be thoroughly evacuated and the baneful results of the adhesive peritonitis relieved with the least danger to the sufferer? There are two well traveled roads leading to the pelvic cavity; that by the outlet or vaginal route, and that by the inlet that is above the pelvic brim through the anterior abdominal wall.

On digital examination in a case of pelvic abscess, we frequently find a bulging in the posterior vaginal fornix in the region of the pouch of Douglass, in which fluctuation is discovered. It is immediately suggested to the mind of the surgeon to aspirate, which may or may not be followed by dilating the punctured wound by means of the dilating trocar, putting in a T-shaped, self-retaining drainage tube and washing out the abscess cavity with some antiseptic or packing with iodoform gauze.

The simplicity of this method appears at once, but though simple as to the surgical skill required, it is not without its dangers, even to the most careful operator, and the few statistics gathered from skilled gynecologists in this city show a greater mortality than the seemingly more formidable operation of opening the abdomen.

It is almost impossible to have an aseptic vagina, having, as it has, a foul drain constantly discharging into it through the cervical canal. Thorough antisepsis or asepsis is difficult to carry out. Germs are carried to the now thoroughly aroused peritoneum and serious trouble may ensue.

Should the operation prove a success in regard to the safe evacuation of the pus discovered, are we safe in saying our patient is thoroughly relieved? Laparotomies have shown us that we are not always dealing with a single abscess cavity in the suppuration ending of a pelvic inflammation, but that while there is an abscess in the cellular tissue about the cervix, there may be another in connection with the ovary, and another in or about the tube, these being primarily the cause of the pelvic inflammation. In the adhesions resulting from the plastic exudate, a number of little chambers are formed, each with thickened walls—nature's bulwark against general peritoneal infection—and each containing some of the purulent exudate that goes on poisoning the nerve centers until the life of the patient or that of the poison is destroyed.

Possibly the most disagreeable and invalidating symptoms resultant to a pelvic inflammation are those caused by the many firm adhesions that bind and fix the pelvic viscera. The relief of these we cannot hope for through our vaginal opening.

Again, as the majority of pelvic inflammations are caused by a diseased tube discharging its virus into the peritoneum, and as surgery always aims to remove the cause of the disease as well as the disease itself, so, should this condition be discovered, the offending part can be removed and the patient given a far better chance for a permanent recovery. As it is our imperative duty to do the most good with the minimum of danger, the road through the abdominal wall seems to offer the most advantages.

The *technique* in opening the abdomen for an abscess in the tube or ovary is the same as that for removal of the uterine appendages for other causes, and will not be given here, as I only aim to discuss the different lines of treatment to be employed to obtain permanent relief from an abscess cavity within the pelvis.

If, on opening the abdomen, the abscess be found to be extra-peritoneal, and not too deeply situated, the sac may be aspirated and thoroughly irrigated, the opening stitched to the abdominal incision and packed with iodoform gauze or drained by the insertion of a drainage tube.

Should it be found difficult to bring the sac high enough to be drained through the abdominal opening, the vaginal opening can be made and drainage established from below. In case of rupture of

any of the abscesses located about the tube and ovary, a thorough flushing of the pelvic cavity with large quantities of hot water, either plain or mildly antiseptic, will usually remove all sources of peritoneal infection.

No surgical operation that gives a chance for the entrance of poisonous germs to the tissues should be performed without a strict attention to cleanliness, and in no case is this injunction so imperative as when the delicate lining of the abdominal cavity is to be molested. I once heard a prominent surgeon, when asked what had been his chief gain from a recent visit to the European hospitals, answer, simply to be more cleanly. As he had seemed to take all the precautions possible before, this added care hardly seemed necessary. Yet, it is this extra attention to this most important detail that is the main secret of success in abdominal surgery.

In summing up the plans of treatment of pelvic abscess, like many other surgical or medical problems, no rigid rules can be given, and much must be left to the judgment of the surgeon or physician.

Should there be simply a connective tissue phlegmon, either extra or intra-peritoneal, opening through the vagina would be the simplest method of relief, requiring less surgical skill and *technique*.

The same plan may be followed in a general pelvic abscess, when it can be demonstrated to be independent of any tubal or ovarian connection; a very rare condition, however. Then aspiration through the vaginal wall may be made to give temporary relief until arrangements can be made for the more complicated operation of celiotomy.

As the cause of the trouble can most often be found in the fallopian tube, the indication for the superior opening is clear in the greatest number of cases; the mortality being about 10 per cent. among the many operators, but being very much less—practically nothing—among a few careful specialists.

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GASTRIC ULCER.

By W. E. BATES, M.D., Davisville, Cal.

Read before the California Northern District Medical Society.

I have limited the scope of my paper to a rough outline of the etiology and pathology of this malady, and confined myself principally to the detailing of some cases that have come under my immediate care.

The primary cause of ulcer of the stomach may be one or several of the following conditions: Traumatic or thermic irritations; violent emesis; hemorrhages due to congested conditions; hyperemia and

stasis in circumscribed vascular areas of the mucous membrane; hemorrhagic infarctions; spasm of the vessels and atheromatous, amyloid, or aneurismal degeneration. The pathology can be summed up in a word—necrosis. Necrosis of one or all the coats of the stomach, due to one or several of the above-named conditions. Repair begins only when the anomaly producing the ulcer is removed. Then reactive inflammation of the base of the ulcer and surrounding tissues sets in and subsequent cicatrization becomes possible. With these few remarks, I will pass on to the history of a few cases:

CASE I.—I was called in the forenoon of May 25, 1890, to see Charles G——, a farmer, residing 4 miles south of Davisville. He was a fairly well built man, 5 feet 6 inches in height, and weighing 138 pounds. Six years previous he was thrown on the pit of his stomach, across the horn of a saddle by a bucking horse, after which he vomited considerable blood. He was more or less sore therefrom, but seemed to recover in a few weeks from all effects of the fall. Some time after, dyspeptic symptoms supervened, and he was treated off and on for these with no permanent benefit. During the past three months the symptoms had gradually increased in severity, and for some weeks his suffering had been very great. For a week he had been vomiting, and often, while out plowing, he would vomit a pint or more of blood. The past two nights he had awakened and vomited nearly a half chamberful of blood each time. This morning, however, he had lost so much blood he was unable to leave his bed. There was nearly a half chamberful of clotted blood by his bedside, and he was exsanguinated to an alarming extent. There was tenderness on pressure over the pit of the stomach extending slightly to the right. He complained of almost constant pain, but it was greatest a half hour after eating.

I enjoined rest, both locally to the stomach and generally. An enema of fluid extract of ergot was given, as I had none that could be used hypodermically, and *per os*, 20 grains of bismuth subnitrate was administered every three hours. At the end of eight hours, as this did not arrest the hemorrhage, I endeavored to check it by 3-grain pills of gallic acid, but the oozing still continued, and the patient died from loss of blood on the third day.

At the autopsy I found an ulcer on the posterior wall of the stomach, near the pylorus, the size of a 25-cent piece. The base of the ulcer was the pancreas, it having eaten through the stomach after having formed adhesions to that organ. Quite a large vein was partially severed, and through this the blood had poured. This specimen I now submit for your examination.

CASE II, is a younger brother of the patient just referred to. He is 34 years of age, and has complained of dyspeptic symptoms for several years past. I first saw him at my office in March, 1891. The dyspeptic symptoms dated from a blow on the abdomen from the tiller of a header.

He was suffering considerable pain from his ride of 7 miles into town, and his wife, who accompanied him, said he was unable to

do any work that was heavy, as any straining on his part increased the pain. This pain he described as circumscribed, of a burning, gnawing character, and increased on eating. He had a constant, craving appetite and thirst. There was tenderness on pressure just below the costal cartilages of the seventh and eighth ribs on the left side. The tongue looked glazed, cracked and irritable. There was no nausea and no fever.

His passages were flat and ribbon-like in shape, about $\frac{3}{4}$ of an inch broad, and $\frac{1}{4}$ of an inch in thickness. His tendency in walking was to stoop forward and retract the abdomen. There was an increased amount of hydrochloric acid present. My diagnosis was an ulcer of the stomach, with adhesions to the transverse colon, causing stricture of the latter organ.

I first enjoined moderate rest (that is, to desist from work), and placed him on large doses of bismuth subnitrate in elixir of lacto-peptin, and gave McMunn's elixir of opium to ease pain. As this did not improve his condition, he was ordered to bed, and to be fed *per rectum*. A large fly blister was placed over the seat of pain, and when healed, massage was instituted. His rectal injections consisted of peptonized milk, raw eggs, beef tea, etc.

For fifteen days he was nourished exclusively in this way, during the latter end of which time he could think of nothing, talk of nothing, and dream of nothing but something good to eat. In his dreams he would see vast tables spread with all the good things he had ever seen or heard of, and on which he would gourmandize but never be satisfied. He held his flesh fairly well under exclusive rectal alimentation, but at the end of fifteen days his pains having left entirely, except some tenderness on pressure, he was placed upon crackers and milk in small quantities, and an occasional meal with what he called his false teeth—the syringe. The milk at first was peptonized with Fairchild's tubes, but it was found that it caused less uneasiness when not peptonized.

In about five weeks the tenderness over the stomach had entirely disappeared, and I began to dilate the stricture by introducing Wales' soft rubber rectal bougies. The first one it was possible to introduce being No. 3. The sizes were very gradually increased until it was possible to introduce a No. 12, the largest size. As the bougie passed the stricture he felt pain in the same spot where he used to feel it when he first called on me. I therefore was quite positive that the trouble was originally an ulcer in the stomach, with subsequent adhesions to the colon, causing a stricture in the latter.

Patient's diet was gradually extended until he could eat everything within reason, and to-day he is strong and well.

CASE III was that of a man 48 years of age, who was for years a bartender. He came to my office in October, 1891, complaining of pain in the pit of his stomach, and, what alarmed him most, a slight jaundice. He had had pain in his stomach, and also vomiting for several years, but his pains had increased lately, and the jaundice had just been noticed. I found tenderness on pressure over the pit of the stomach, extending to the right under the edge of the costal

cartilages. About half an hour after taking food the pain and distress were markedly increased. Emaciation was extreme.

I ordered him to bed, put a 4x4 cantharidal plaster over the seat of pain, fed him *per rectum* entirely for eight days, and used inunctions of pure codliver oil freely. After the blister had healed, gentle massage was instituted. This procedure I carry out myself, as a rule, with a two-fold object: in the first place, with the idea of aiding nutrition and absorption of the adhesions; and secondly, to elongate, if possible, the bands of adhesions which may still remain, thus freeing the organ and admitting of its better mechanical working. In eight days his pains had ceased and food was gradually given *per os*, consisting mainly of well-boiled rice and cream, as this seemed to best agree with him. The jaundice gradually disappeared, and was entirely gone in a fortnight. Within a few months the patient had improved greatly, but he has never grown very stout. His stomach is still weak, as he has a catarrhal gastritis, a result of his long years of drinking, and will not submit to lavage of the stomach and a course of treatment. While not entirely cured, he is up and about, able to attend to his business, and with some regard to his diet enjoys very good health.

As the patient had ceased drinking for several years, and there was no decrease in the size of the liver, I believe in this case I had an ulcer of the stomach, with adhesions to the liver.

A NEW METHOD OF TREATING FRACTURED PATELLA.

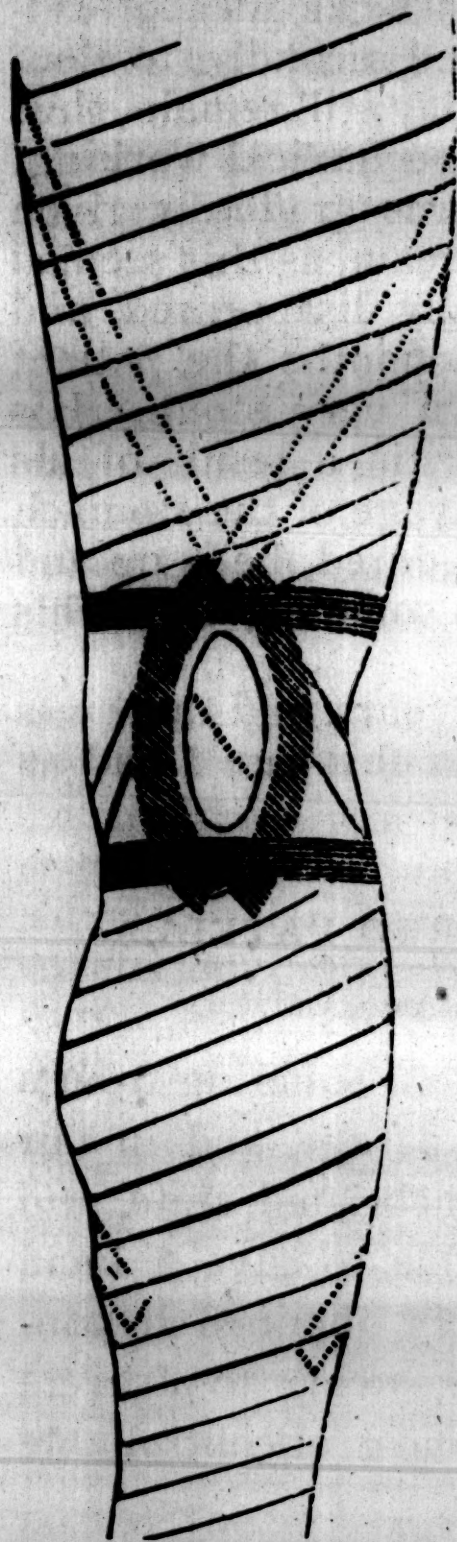
By DONALD MCC. GEDGE, M.D., San Francisco, Cal.

A year ago a patient came under my observation, suffering from a fracture of the right patella. She was 27 years of age, and in fair physical condition, although at the time in an inebriated state, and threatened with *mania a potu*. She was unable to give a lucid account of herself, but sufficient information was obtained to conclude that the injury was due to direct violence, owing to a severe fall. She was suffering from intense and almost uncontrollable nausea and vomiting, and very considerable pain.

Examination of the injured limb revealed a very swollen and ecchymosed condition of the right knee, all landmarks being nearly obliterated, and the patella resting above and surrounded by considerable effusion. Over its center an abrasion about $\frac{1}{2}$ inch in diameter presented, from which radiated an oblique line of indentation, from above and without, downward and inward. The limb was slightly flexed and painful upon manipulation. Palpation gave evidence of an oblique fracture of the patella with about $\frac{3}{4}$ of an inch separation.

The limb was placed at absolute rest and applications of lead and opium made for 24 hours, the compresses being covered by cloths wrung out in ice water. Upon the reduction of the active conditions

present, a means of dressing was sought that might insure the best results exclusive of radical measures. Circumstances demanded the employment of what was at hand, and the usual conservative methods having been generally condemned, I devised and successfully carried out the following method:



A strip of moleskin plaster $1\frac{1}{2}$ inches wide was taken, and the upper end applied firmly to the upper and inner surface of the thigh. It was then brought downward, forward, and outward, with considerable tension, crossing at the upper margin of the upper fragment of the patella, which, by hyperextension of the limb and manipulation was brought down to its normal site, thence outward and downward on the external surface of the joint, down upon the calf of the leg, then carried behind and fastened on the inner surface of the leg well down. A similar process was gone through by beginning on the outer surface of the thigh, and proceeding in an opposite direction. These two strips, crossing as they did at the upper fragment, allowed of very considerable tension and fixation. Two strips, $3\frac{1}{4}$ inches wide, were now rolled with the gummed side out, shaped and fitted snugly into the sulci on either side of the patella. Two other strips, $1\frac{1}{2}$ inches wide, were next taken, and passed around the limb above and below the site of injury, drawn firmly, and made to include the ends of the pads in the sulci, and to hold them firmly in position. A posterior splint of pasteboard, extending from the middle of the thigh to the lower third of the leg, was next fitted. A long roller bandage was applied so as to include the entire limb from the toes up, skipping the site of injury.

The advantages gained were total fixation and retention of the fractured portions in apposition, the site of fracture being left open to view, and admitting of any local application indicated, and complete observation of the progress of repair. The dressing was readjusted in 10 days, and slight passive motion begun at the end of two and a half weeks. At the end of five weeks complete union was obtained and the patient left for home, and has not suffered any since. Walking is entirely normal. This is the only case I have

had in which to try this dressing, but I think it will recommend itself for simplicity, and that it will be found valuable in similar cases where reduction is possible.

406 Sutter street.

THE USE OF CHLOROFORM IN ANESTHESIA.

By H. W. STRADER, M.D.

Read before the Sacramento Society for Medical Improvement.

My reason for presenting this time-worn subject for your consideration is the fact that a majority of surgeons in the United States are not using chloroform for anesthetic purposes. I propose to show that this is not in accordance with the opinions of medical men who have made a study of the subject, and whose opinions are entitled to consideration, owing to their large experience. I shall quote largely from recent writers on this subject, especially from a work by Dr. Hewitt, of London, published in 1893, and from lectures delivered last year by Dr. William Henry Porter, of the New York Post-Graduate School.

Agnew's Surgery, Vol. 1, page 291, condemns the use of chloroform for general anesthetic purposes in no unmistakable terms, and says "it should be excluded, with few exceptions, from general anesthetic purposes." Other writers, especially from 1880 to 1885, follow the same course. So far as I have been able to determine, more recent writers wish to concede to chloroform certain conditions in which it is more suitable than ether. These conditions I propose to review in this paper.

Chloroform should correspond to the following tests: It should have a specific gravity of 1.491 and a boiling point of 60.16° C. It should be perfectly transparent and colorless. It should be absolutely neutral to test paper. It should possess an agreeable, bland, and non-irritating odor. When a portion is allowed to evaporate spontaneously from a watch-glass it should leave no residue, either of water or any substance possessing a strong smell. When shaken with concentrated sulphuric acid no brownish coloration, or only the faintest, should result. It should form no precipitate with a solution of silver nitrate. It should not acquire a brown color when heated to the boiling point with caustic potash.

It is a fact that less than 25 per cent. of the fatalities reported are in females, while the administrations proportionately are almost double that number. Why this is so I shall not attempt to answer. Hewitt says: "The age of the patient has of itself no special influence in modifying the effects produced by anesthetics." Infants a few hours old, as well as centenarians, have been safely anesthetized.

"Chloroform does not irritate the air passages as does ether, and is usually to be preferred in children, but chloroform is not absolutely harmless in children, as supposed by some. The principal danger is that too much be given, producing a deep, tranquil sleep, thereby masking any unfavorable symptoms."

The A. C. E. mixture referred to in this paper is composed of alcohol 1 part, chloroform 2 parts, ether 3 parts. This mixture, condemned by some writers, is highly recommended by Hewitt, when properly administered. The A. C. E. mixture is often best with children, and can be followed by ether or chloroform.

"Ether may be given in the aged, if there are evidences of senile changes, but the use of nitrous oxide is especially indicated in such conditions. Excitable, highly-strung, neurotic persons can be anesthetized by commencing with nitrous oxide, followed by ether. High livers, morphine habitues, alcoholics, excessive users of tobacco, etc., usually require a large amount of the anesthetic, and it is among these classes that the death rate is high. It is a remarkable fact that a patient whose health has become somewhat impaired by disease is a better subject for anesthesia than the patient of healthy appearance and general good physique." "This is especially true as to chloroform. The healthy, vigorous and stalwart are by no means the best subjects for anesthesia. It is true their circulation and respiration will hold out longer under any strain, but they do not pass under the anesthetic as do the more feeble. Emaciated children require a remarkably small quantity of an anesthetic. The obese are usually intolerant of any anesthetic, but should any be given the A. C. E. mixture is best, ether in preference to chloroform. Patients of a florid color, distinctly plethoric, short-necked, may, under nitrous oxide or ether, assume a duskiness of features alarming, but it is not of itself an indication of any untoward condition. Anemic patients take anesthetics well, small quantities being required and a speedy return to consciousness follows.

Fixity of the lower jaw, especially when the upper and lower teeth fit accurately, has a tendency to cause difficulty of breathing more than in those whose teeth are defective. If the nasal airway be free, breathing will usually take place through it during anesthesia; but if obstructed more or less, use some mouth prop. Partial nasal obstructions will have a tendency to become complete. Even though the nasal passage be free, some patients do not breathe freely when deeply anesthetized. Morbid growths of the tongue, soft palate, tonsils, pharynx, epiglottis and adjacent parts, from alteration of position or vascular turgescence, interfere with respi-

ration during anesthesia. Glandular, lipomatous and other tumors of the neck, including thyroid growths, seriously lessen the capacity of the airway. The advisability of a previous tracheotomy should be discussed. For these cases great care should be used in the selection of the anesthetic; usually the A. C. E. mixture is the best.

Ether is not contraindicated in all cases of bronchial, pulmonary and pleural diseases, but if given at all it should be very cautiously. The A. C. E. mixture and chloroform should be given in preference to ether in these conditions. In patients who have recently suffered from pleurisy or pleuro-pneumonia, death often results from heart failure, after a struggle. In valvular and other cardiac diseases, the anesthetic must be selected to suit each individual case, and must be administered in such a way that no undue strain be placed upon the heart. In advanced cases the A. C. E. mixture is best. In aneurism or extremely atheromatous conditions, the A. C. E. mixture is best, chloroform is preferable to ether. The danger in these cases is cerebral hemorrhage.

In railway injuries, strangulated hernia, gastrotomy, and other conditions where the patient is in a state of collapse, ether given in the open inhaler is usually best. Nitrous oxide should not be used in these cases. Should the eyelids lose their tone and not close, it is an indication of great prostration of the vital powers, but it may arise from too much ether, or other causes. Caution must be used in cases of "hectic," as well as in those stimulated by alcohol.

Syncope of the worst type has been known to arise during anesthesia in intestinal obstruction. The A. C. E. mixture or chloroform is recommended in peritonitis, perityphlitis and allied diseases and operations. If a patient is sleepy, drowsy and half unconscious, do not use nitrous oxide. The A. C. E. mixture is best. Epileptics can be safely anesthetized.

In advanced diseases of the kidneys, chloroform is the best anesthetic, but ether can, if properly administered, be given, even if Bright's disease be present. Do not operate during menstruation, unless the case be one of emergency. Hemorrhage is more troublesome. An anesthetic can be safely given up to the sixth month of pregnancy, if properly administered. The A. C. E. mixture is best. Do not use nitrous oxide after the sixth month.

For administering an anesthetic the best position is with the body supine and the head and shoulders slightly raised. "Should the operation require the semi-recumbent position, chloroform should not be used or change to ether when this position is assumed. In the latero-prone position ether should be used if not contraindicated.

Operations may continue so long as the pulse can be counted at the wrist. Should the pulse become running, or almost imperceptible, remove the patient to bed at once. We meet with certain cases in which, independently of the anesthetic and independently of the hemorrhage or prolonged surgical interference, symptoms of cardiac depression, possibly of an urgent character, make their appearance." Operations upon the lips, cheeks, jaws, tongue, floor of mouth, palate, tonsils, naso-pharynx and nose, anesthetize with ether thoroughly, and elevate to semi-recumbent position, and endeavor to complete the operation without additional anesthesia. With nasal polypi, laryngotomy, tracheotomy, and other operations upon the larynx and trachea, use chloroform. The A. C. E. mixture is better than ether. In all operations upon the neck use chloroform. It causes less vascular enlargement.

In operations upon the pleura and lungs definite rules cannot be given. The condition of each case must be determined. "In all abdominal operations ether should be excluded, but, if properly administered, it can be given without the usual disagreeable consequences. Ether should never be employed when the abdomen is distended. The A. C. E. mixture is best. Chloroform is best when there is acute intestinal obstruction. In operating upon the genito-urinary organs use the A. C. E. mixture or chloroform. In rectal surgery use ether. Especial care must be employed, as they are often plethoric. Operations upon the brain or its membranes, use chloroform or the A. C. E. mixture."

"Parturition and obstetric operations, use chloroform unless contraindicated by uterine inertia. Ophthalmic operations, use the A. C. E. mixture or nitrous oxide. Manipulations requiring muscular relaxation, use chloroform unless the muscles be flaccid, then use ether. In alcoholic cases, use ether. Etherization followed by chloroform is often necessary in these cases." Chloroform is used in cases of renal and biliary colic, and other acute painful seizures. Chloroform is best in puerperal eclampsia, strychnine poisoning, and tetanus. "In one case of the latter a child was kept under its influence for 13 consecutive days, 100 oz. being used." "The Junker chloroform inhaler has been in use in the London Samaritan Free Hospital for 20 years without an accident."

Dr. Wm. Henry Porter, of New York, says, "Chloroform is just as safe as ether if precautions are taken against its dangers, and death cannot take place from it, if these precautions are observed, but it lacks the primary stimulation obtained from the oxidation of the ether, and its yield of heat and energy in the form of reflex imulation." The same writer says: "Chloroform is less damaging

to the chemico-physiological process of the animal economy than is ether, consequently chloroform is safer than ether. More skill, however, is required in its administration. Neither chloroform nor ether can be administered with impunity, as was formerly thought regarding ether."

Dr. O. Kappeler reports 800 chloroformizations, with no fatal results. Of these 420 were males and 380 females, the ages ranging from 14 days to 82 years. Average amount used, 12 c.c.; 33 c.c. used for every minute of the anesthesia. Average time required to produce anesthesia, 8 minutes; 6 gm. to 100 liters of air used in apparatus; 5.5 c.c. were used to make patients ready for operation. Of the 800, 698 did not vomit; 20 showed nausea; 82, or 10 per cent., vomited; 21, or 2.8 per cent., vomited after the operation, 13 cases vomited severely. They had all taken food shortly before. Of the 800, narcosis was good in 667, fair in 81, bad in 62 or 6.5 per cent. The chief cause of unpleasant and disturbing symptoms was potatorium, hysteria, and dread of the operation. Two cases presented dangerous symptoms owing to their debilitated condition. There were 14 narcoses, lasting from 1½ to 2 hours, with no untoward symptoms; 13 of the 800 lasted over 2 hours, with no ill effects from respiration or circulation.

When not contraindicated, I use morphine $\frac{1}{4}$ gr. and atropine $\frac{1}{100}$ gr. before beginning to anesthetize with chloroform, for the following reasons: Morphine is to some extent a heart tonic; atropine is a respiratory stimulant; the morphine prevents shock; less of the anesthetic is required; the patient rests better after the operation; it prevents too rapid reaction; it prevents vomiting to some extent; the asphyxial symptoms are almost entirely relieved and the breathing is more quiet; morphine before chloroform in cerebral surgery is of especial value in producing anemia of the brain; the stage of excitement is shorter.

The following precautions should be used in administering chloroform; Quiet the fears of the patient; use the recumbent position to equalize the circulation of blood from heart to brain; give, hypodermically, morphine $\frac{1}{4}$ gr. and atropine $\frac{1}{100}$ gr.; remove all clothing from patient and cover with blankets; do not commence by saturating a handkerchief and covering the face, thus shutting out all air; commence with a small quantity, and if patient coughs violently remove it temporarily, recommencing when the breathing is quiet; do not administer more than is necessary for the operation; a pure chloroform is most essential. Squibbs' is the best that I am familiar with. If after commencing the use of chloroform unfavorable symptoms arise, change the anesthetic; remove artificial teeth; the admin-

istrator should not try to watch the operation; do not hurry under any circumstances; do not strangle your patient; do not stick your dirty finger in the patient's eyes; do not keep swabbing the mouth and pharynx with cotton or sponge; do not give a hypodermic injection at every sign of depression.

I prefer to use chloroform, when not contraindicated, for the following reasons; The degree of anesthesia can be better measured than by ether; anesthesia is much sooner accomplished; the patient is not so liable to vomit; it is a better remedy for emergencies, as hysterical spasms; chloroform being a narcotic is a better preventive of shock; chloroform is more convenient and has few contraindications for the general practitioner; the rapidity and ease of use make it of special value on battle fields; it is not injurious to diseased kidneys as is ether; it is more pleasant to inhale; it is not so likely to be followed by pneumonia as ether; it does not produce any increase in temperature; it does not irritate the air passages; it does not require the strength of anesthetics, operator, and assistants to hold the patient upon the table as is sometimes the case in ether anesthesia.

Dr. Hewitt concludes as follows: "Nitrous oxide is the safest anesthetic, the A. C. E. mixture is more safe than ether, and ether more safe than chloroform. He gives the following statistics: Total number of chloroform administrations, 676,767; total deaths, 214; death rate, 1 in 3,162. Total number ether administrations, 407,553; deaths, 25; rate, 1 in 16,302." Making the death rate about five times greater in chloroform anesthesia than ether.

I cannot accept these statistics as complete, because all cases of deaths reported are counted, while only hospital statistics are compiled to show the number of administrations. This is plainly an incorrect view, showing that the statistics are not right in either case. These statistics do show that hospital patients, being more often addicted to the use of alcohol than patients in private practice, give us a higher death rate, and have taught us to be careful in using chloroform in these cases. I do not have the least idea that anesthetics are the cause of more than 25 per cent. of the deaths attributed to them, for we must remember that people die at all times and circumstances, and the administration of an anesthetic will not keep them with us always.

I wish to urge upon members of this Society to give chloroform its proper place among anesthetics; carefully selecting the anesthetic to suit each individual case, and to get out of the routine use of any one anesthetic.

Sixth and K streets.

THE RECENT SMALLPOX EPIDEMIC IN MODOC COUNTY.

By BRADFORD WOODBRIDGE, M.D., Alturas, Cal.

There are, perhaps, no other communities in California, situated so far from the centers of population and the main highways of travel, as those of Modoc county. The distance from Alturas, the county seat, to Reno, the nearest point on the transcontinental railroad, is 180 miles, and to Redding, the nearest railroad town on the west, it is 200 miles. The county is sparsely settled, the population being less than 5,000 in an area of 4,500 square miles. Having in view these facts, together with the consideration that no case of smallpox had been reported in the State for nine months, it seems somewhat remarkable that an outbreak of the disease should occur in this place.

On the 20th of April last, Dr. A. Gibson, of Cedarville, announced that there was a case of variola in his town. The patient was a young man named Sullivan, a resident of the neighborhood. He had recently traveled about the county to some extent, but had not been in any railroad town, nor, so far as he knew, had he come in contact with any person who had been exposed to smallpox. Within two weeks after the appearance of the first symptoms in this man, three other persons in the town became similarly affected.

Experience shows that the people of country towns are slow to admit the existence of contagious disease, and especially of smallpox, in their midst, and in the present instance, doubts were expressed on all sides as to the real nature of the malady. At this juncture, Dr. Geo. M. Kober, of Fort Bidwell, and the writer were called upon to inspect the cases. On their confirming Dr. Gibson's diagnosis, the people woke up to the situation, and thereafter no means were neglected which might help stay the spread of the plague. Strict quarantine measures were enforced, and vaccination and revaccination were insisted upon and very generally adopted, with the result that but one more case developed in the immediate neighborhood.

Meantime there were reports that the disease had made its appearance at Willow Ranch, a village about 50 miles distant from Cedarville. Six days prior to the time that Sullivan became affected, a young man living at the hotel at Willow Ranch, had exhibited symptoms of a disease which the two physicians who attended him had pronounced "chicken-pox." After a week's sickness he died. Previous to his death his sister, living in the same house, had contracted the malady. Notwithstanding these facts, arrangements were made for a public funeral, and it was only through the efforts of Dr. B. Daly, of Lakeview, who, though he had not seen the cases, suspected the

nature of the disorder, that the ceremony was dispensed with. No quarantine was placed on the house, however, and the neighbors flocked thither to visit the sick and to condole with the bereaved.

On the 23d of May, a County Board of Health having been organized, Dr. Geo. M. Kober and Dr. G. P. Bissell were appointed commissioners to visit the Willow Ranch district for the purpose of determining the nature and extent of the eruptive disease prevailing in that vicinity. These gentlemen visited nine families and saw 13 cases which they declared to be smallpox, ranging in severity from the mildest varioloid to variola of the most malignant type.

On this announcement, in addition to the precautionary measures which had already been adopted, disinfecting stations were placed on all the roads leading from the infected districts, and no one was allowed to leave such a district without undergoing thorough disinfection of his person and fumigation of his clothing and baggage. The good result of these measures is evinced when it is stated that after they went into effect, no case appeared outside an infected district. For fifty days there was no relaxation of vigilance, and not until the last case was out of quarantine were the disinfecting stations discontinued.

As nearly as can be ascertained, there were altogether 50 cases of the disease in the county, 45 of them being in the Willow Ranch district. There were but two deaths. The youngest child attacked was aged 2 years, and the oldest person 88 years.

An interesting point in connection with the epidemic relates to the introduction of the contagion. With no cases of smallpox nearer than Chicago, how did the germs of the disease find their way into the isolated villages of Modoc county? Dr. G. W. Pleasants, of Willow Ranch, gives the following plausible explanation: About two weeks before the first appearance of the disease, a gentleman traveling through the county, who had come directly from Chicago, stayed over night at the hotel at Willow Ranch. While there he lost a woolen mitten, which was found in the house a few days later. Nine days after the discovery of the mitten, the young man already mentioned exhibited symptoms of smallpox. Within a week two other persons living in the house also became affected. The gentleman from Chicago stopped one night at a hotel in Alturas, at which Sullivan spent the night twelve days before he was taken sick. Dr. Pleasant's theory is that the traveler introduced the contagion, and that the mitten which he left at the Willow Ranch hotel was an infected article.

From observation of this epidemic, the following practical conclusions have impressed themselves on my mind:

1. The mere isolation of a community is no safeguard against the invasion of contagious diseases.
2. Every village and town should have a health officer or a board of health, as provided by law, so that no time may be lost in taking the active measures necessary to stamp out incipient epidemics.
3. The responsibility of the physician in making an early and correct diagnosis in cases of contagious diseases cannot be overestimated; the neglected spark kindles the conflagration.
4. In vaccination and revaccination, together with rigid quarantine, we have thoroughly efficient means for the control of epidemics and threatened epidemics of smallpox.

A CASE OF A CHILD CRYING IN UTERO.

By JAS. A. SIMPSON, M.D., San Francisco, Cal.

Read before the California Academy of Medicine.

I desire to give a brief report of a case of the crying of a child *in utero*, in-so-far as I am able to ascertain, a rather rare occurrence in obstetrical practice.

On May 16, 1894, I was associated with Dr. Wemple, of this city, in a case of confinement, in South San Francisco. The mother had been in labor for some hours, the cervix was well dilated and the breech presenting. The natural forces seemed insufficient to effect delivery, and it was decided to perform extraction. Accordingly, the mother was anesthetized, the hand introduced and one foot brought down.

As soon as the foot appeared at the vulva, the cry of a child was distinctly heard by all present. The sound was somewhat muffled and seemed as though it came from under the bed. The cry was repeated a number of times, but ceased as soon as the head engaged in the superior strait.

Delivery was effected as rapidly as was consistent with safety to mother and child. The latter was born asphyxiated, but soon revived, breathed, and cried again. There was no evidence of liquor amnii or mucus having been drawn into the air passages. The child is now alive and well.

The explanation of this phenomenon is simple enough, for in the operation of bringing down the foot air entered the uterus and the child breathed and was so enabled to utter the cries.

In my limited researches on this subject, I have been able to find but few such cases reported in medical literature. On the 6th of February, 1894, Dr. Grandin reported a somewhat similar case to the Obstetrical Society of New York. In that case version was per

formed, but in all other respects the case was similar to the one just reported. In the discussion that followed, four other members each reported a case, and an important feature in these four cases was that in two the child perished during delivery. Dr. Grandin's case, with the discussion, may be found in the April number of the *New York Journal of Gynecology and Obstetrics*.

Another case of this kind was published in May, 1887, in the *Medical Press and Circular*. In this case the vertex presented and the forceps was applied. It is stated that the crying continued until the head was outside the vulva, which seems to me somewhat remarkable, as I scarcely see how the children could cry while the head was passing through the pelvis.

In a medico-legal way this subject may be of some importance, since the fact that a child has breathed, when proved by *post-mortem* examination of the lungs, is considered proof positive that it had had an independent extra-uterine existence. In the two cases that died during delivery this would certainly be an error, for had the lungs been examined evidence of respiration would have been found, and yet both were born dead.

Butte and Kentucky streets.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Ligature of the Broad Ligaments in Uterine Fibroids.—DR. H. MARTIN ligatures the broad ligaments through the vagina, cutting off a larger or smaller part of the ligament, according to circumstances. Sometimes he includes only the lower part of the one or of the two ligaments, with the arteries and uterine nerves; sometimes, on the contrary, he completely ligatures one of the ligaments above the uterine and ovarian artery, and ties only that portion of the other containing the uterine artery. Dr. Martin makes the following report of the five cases in which he has performed this operation: (1) Uterine fibroid; abundant hemorrhage; rapidly growing tumor. Ligature of one ligament; cessation of hemorrhage. Examination several months after showed that the tumor had neither increased nor diminished in volume. (2) Large fibroid; severe pain; constant and abundant hemorrhage. The patient unable to leave her bed. Complete ligature of one ligament; partial ligature of the other. Immediate cessation of pain and hemorrhage. Three months afterward the tumor had nearly disappeared. (3) Interstitial fibroid: abundant hemorrhage. Ligature of one broad ligament. Diminution of hemorrhage, but no decrease in the size of the tumor. (4) Patient 36 years old; partial ligature of the two broad ligaments for fibroid, accompanied by hemorrhage. Five months afterward menstruation had become normal and the tumor had greatly diminished in size. (5) The last case is the most interesting, The fibroid extended

to the umbilicus, with frequent and severe hemorrhage. Laparotomy was performed in the hope of removing the tumor, but adhesions were so numerous, and the pelvis so entirely filled by the fibroid, that it was necessary to close the abdomen without further intervention. After the patient's recovery from this operation, the two broad ligaments were tied above the principal vessels. Since that time the patient has menstruated regularly and the tumor has decreased three-quarters in size.—*Gazette de Gynécologie*.

Dangers of Intra-Uterine Injections of Glycerin.—About two years ago a German obstetrician, M. PELRER, advised intra-uterine injections of glycerin as an absolutely innocuous and rapidly efficacious method of bringing about premature labor. But MEULLER (*München. med. Wochenschr.*) and PFANNENSTIEL (*Centralbl. f. Gynäkol*) have simultaneously published observations tending to show that these injections are not efficacious and are extremely dangerous. Almost immediately after the administration of the injection Müller's patient was taken with violent diarrhea, uncontrollable vomiting and a severe chill, which lasted nearly an hour and was followed by pain, dyspnea and rise in temperature. Labor did not occur until the next day, after the temperature had fallen and again risen to 40° C. The child lived only two hours, and the patient was delivered of another child (still-born) on the following day, after a repetition of the same symptoms. Repeated examination of the urine revealed intense hemoglobinuria. Almost the same symptoms were observed in Pfannenstiel's case, except that the urine contained a large quantity of albumin, and labor did not occur for several days after the glycerin injection. Both patients recovered. The two authors agree as to the presence, in each case, of glycerin intoxication, the possibility of which has been shown by the experiments of Robert, Schwalm and Lebedeff.—*Révue Médicale*, May 6, 1894.

SURGERY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal., and

G. F. SHIELS, M.I., C.M., I.R.C.S.E., Surgeon Post-Graduate Department University of California, San Francisco.

Neuromimesis.—Two Cases in which the Hip-joint Had Been Held Fixed for Nine Months.—MR. W. G. SPENCER says (*Lancet*, April 28, 1894): These two cases are worthy of note, since for nine months the hip-joint in each was believed to have been seriously injured. Sir James Paget, in his Clinical Lecture on Nervous Mimicry,¹ has described the group to which these patients belong. The first case was that of a strong, healthy sailor, 17 years of age, who had been thrown down by a lurch of the vessel in the North Sea. He had been treated during 9 months as for an injury of the hip-joint by rest and liniments. He expressed himself as very anxious to regain the use of his leg. The other, a young man 20 years of age, was also perfectly healthy. Last August an accidental kick just above the left pubic spine had caused an abrasion, followed by an abscess. The place was marked by a superficial scar. He had formed the notion that the left hip had been dislocated by the kick and was still out of joint. These two cases were identical in character. Both patients complained of a fixed hip-joint and of pain along the inner side of the knee. In both the limb was held rigidly extended at the hip, neither rotated in nor out, and neither abducted nor adducted, a position not obtaining in disease or after injury. The length of the affected limb and the great

¹ Clinical Lectures and Essays, second edition, 1879, p. 210.

trochanter, in respect to position and touch, corresponded with that of the opposite side. Firm pressure over the front of the joint caused no pain. Sufficient nitrous oxide gas was given to the first patient to overcome resistance, and the free motion of the hip-joint was continued as he recovered consciousness. In the second case I diverted the patient's attention for a moment, and, having commenced the flexion, carried the limb by main force up to the abdomen. The head of the bone moved freely in the joint, and both patients were able to stand on the other leg and flex the affected limb to less than a right angle with the trunk. After this free movement both seemed convinced that there was nothing wrong with the joint—at least, I have not seen them again.

Functional Troubles Following Old Fractures of the Patella.—After a careful study of this subject, CHOUX (*Rév. de Chir.*), comes to the following conclusions: (1) The functional troubles consequent upon old fractures of the patella are either insufficient extension or flexion. (2) The difficulty in extension is due less to the atrophy of the triceps muscle than it is to the momentary physiological inability of the muscle to act efficiently upon the lower fragment of the patella. (3) The difficulty in flexion is dependent on the fibro-articular thickenings, which are themselves due to the retraction of the patella tendon and to the method of union between the fragments. (4) Of the five modes of union, as generally divided, two types alone are capable of interfering with flexion; they are the short, but stiff, osseous or fibrous union and the fibrous union with two to five centimeters' separation of the fragments. (5) The prognosis in incomplete extension may be doubtful for several years, but restoration of function is generally the rule. Intra-osseous suture of the fragments is indicated in cases where the spontaneous reestablishment of function is not realized after a reasonable length of time. (6) In regard to partial ankylosis resulting almost always from short, rigid union between the fragments, either osseous or fibrous, but increasing the length of the patella two or three centimeters, he considers the removal of one of the two fragments the only possible means of overcoming the functional difficulty, unless these types are transformed, as often happens, into types more favorable to flexion. (7) The articular inflammatory thickenings, which often disappear, should be held under observation for from twelve to fourteen months, and are eminently fitted for the hydro-thermal treatment as used in the hospital of Bourbonne.—*American Journal of Medical Sciences*, June, 1894.

OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

The Treatment of Epilepsy by Tenotomy of the Eye Muscles and by Other Surgical Means.—After discussing the history of the different surgical treatments that have been used at various times in the treatment of epilepsy, DR. CASEY A. WOOD formulates the following conclusions: (1) Heterophoria in some form, latent or manifest, can be shown to exist as an ocular condition in fully 95 per cent. of all individuals, (2) Alone, and when associated with amentropia, it is not an uncommon cause of so-called asthenopia. (3) In the latter case the correction of the accompanying refractive error, in the large majority of cases, relieves all the symptoms set up, both by the ametropia and muscular anomaly; when it does not, the heterophoria may be said to be responsible for the asthenopia. (4) It is highly probable that when epilepsy is in part or wholly the result of eye-strain *other* evidence of the latter is present. (5) It must

follow from the foregoing that in eye treatment of epilepsy of any decided degree the correction of the heterophoria is the first and most urgent duty of the ophthalmologist, and that in cases where both are corrected at the same time it is fair to suppose that the results, if any, are due to the ametropic correction, (6) In cases of epilepsy with heterophoria and emetropia, or where the correction of refractive errors has failed to relieve the asthenopic symptoms and the production of orthophoria is followed by cure of the epilepsy and the asthenopia, it is just to say that the operation on the eye muscles or treatment of them has produced the effect of stopping the convulsions. (7) In the absence of ocular symptoms, apart from the epilepsy, an operation upon the eye muscles stands in the same therapeutic relation to a cure or relief of the disease as do other surgical procedures that have during the past century been in vogue, such as tracheotomy, setons, ligature of the vertebral arteries, trephining, oöphorectomy, circumcision, castration, the actual cautery, the resection of stray scars, and so on. (8) These operations bring about a cure or relief of the epilepsy (both idiopathic and hystero-epilepsy) by their powerful mental effect upon the patient—a truth long recognized by neurologists. (9) Genuine cures of epilepsy by eye treatment of any kind must necessarily be confined to those cases where a faulty ocular apparatus acts as a peripheral irritant. It remains yet to be shown that anomalies of the extrinsic muscular portion of that apparatus are to any large extent responsible for seizures of epilepsy. (10) The eye treatment of epileptics who present signs of ocular distress has not received that attention which the importance of eye-strain in the category of reflex irritants seems to call for. The eye should be carefully examined in every case of epilepsy where asthenopic symptoms are present or suspected. (11) I question the wisdom of encouraging the profession, and through it the laity, to believe that *every* case of idiopathic epilepsy is a suitable one for eye treatment, but prefer to say that only those cases are fit subjects, in the proper scientific sense, for eye treatment whose visual organs are palpably the source of irritation, giving rise to symptoms generally included under the term eye-strain. (12) When all remedies fail, some such operation as Reynolds suggests—easy to perform, perfectly safe, and yet of a severity and character tending to make a lasting impression on the patient's mind, is indicated. I would suggest the removal, at intervals, of skin from various parts of the body, the denuded spots being allowed to heal by granulation.—*New York Medical Journal*, July 14, 1894.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M.D., Sacramento, Cal.

Intravenous Injections of Corrosive Sublimate in Syphilis.—DR. GUIDO BACELLI has found, in his experimental work upon animals, that the fears as to the results of these injections, so far as concerns the blood, are unfounded. In two patients suffering from cerebral syphilis, where the ordinary methods of internal administration, ununction and hypodermic injection in large doses had failed, the new treatment gave brilliant results. The usual solution is as follows: Corrosive mercuric chloride, 1: sodium chloride, 3: distilled water, 1,000. The skin must be treated with careful aseptic methods. A vein in the elbow, the back of the hand, or the leg is selected; the vessels are then distended by a bandage, proximally placed. The needle of the filled syringe is inserted, and the injection made into the vein; the absence of pain and subcutaneous swelling indicates that the vein has been entered. In one case, the

metallic taste of mercury was noted by the patient in a few seconds. A flow of saliva followed in 5 or 6 minutes. The initial dose was $\frac{1}{8}$ grain, and it was increased to $\frac{1}{4}$ grain *per diem*, which had not been exceeded. The advantages are: (1) The small quantity of the remedy necessary. (2) The possibility of rapidly combatting the symptoms which are due to the direct blood poisoning caused by the syphilitic virus. (3) The prompt action of the remedy upon the walls of the blood vessels, which are the favorite seat of syphilitic degeneration. (4) The immediate carrying of the drug in the blood current to all tissues and organs.—*Berliner klin. Wochenschrift*—*American Journal of Medical Sciences*.

Ichthyol in Genito-urinary Affections.—H. LOHNSTEIN (*Allg. med. Central-Zeitungen*) arrives at these conclusions: (1) Ichthyol in hot solutions, for urethral use, (.5 to 2 per cent.) is very useful in acute urethritis, especially in those cases where the mucous membrane is very sensitive. (2) In subacute urethritis, where the lesions are circumscribed, local applications of ichthyol (with the aid of the endoscope) render great service. (3) Ichthyol suppositories, in the majority of cases, cause the inflammatory symptoms to disappear in the course of a prostatitis. (4) In chronic urethritis, with infiltration, ichthyol by itself is inefficacious; but, associated with the mechanical treatment, or alternating with it, it appears to be of great benefit. (5) Administered internally, ichthyol does not have any beneficial effect on nephritis or pyelitis.—*Nouveaux Remèdes*, June 8, 1894.

Treatment of Impermeable Strictures of the Urethra.—The difficulty that is frequently encountered by surgeons in penetrating very tight urethral strictures has suggested a method of dilating them which others may find of service in their practice. It consists in passing down to the site of the stricture a catheter shaped as a simple cylindrical tube, open at both ends—an ordinary catheter, from which the eyed end has been cut off, and the edges carefully smoothed, does very well. And through this as a guide, introducing the largest instrument, from a filiform bougie upwards, which can be made to penetrate the stricture.—CHARLES H. WADE, in *Lancet*.

Another most successful means of permeating very tight urethral strictures is "catheterism on physiological principles," as advocated by Mr. Gay, in the *Lancet* for November 16, 1878.—*Lancet*, May 26, 1894.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Bismuth in Gastric Disease.—MATTHES has investigated, both experimentally and clinically, Fleiner's method of treating irritative diseases of the stomach with large doses of bismuth. The results of the treatment were very successful, especially in lessening pain. From experiments on dogs the author shows that ten to twenty minutes after ingestion the bismuth sinks to the bottom of the stomach, whereas several hours later it is found spread over and fixed to the stomach wall, becoming intimately mixed with mucus. Even with a full stomach a large portion is found similarly deposited. Against the action of chemical agents on the stomach wall this deposit of bismuth is most resistant. In men, shortly after ingestion of bismuth, the water used for washing out the stomach returns clear, but if later the stomach contents be expressed, bismuth with mucus is removed. Experimentally, bismuth is shown to increase the secretions of mucus. To determine the action of bis-

muth in cases of erosion, etc., of the stomach, defects were made experimentally in the stomach mucous membrane of dogs and rabbits, and bismuth was then administered. In some cases the results were very indefinite, but in two experiments positive results were obtained. In one case an adherent crust was found acting as a protection to the defect, and sections from both cases showed healing ulcers. In the case of the crust, bismuth crystals were found in the granulation tissues of the healing ulcer. No symptoms of bismuth poisoning occurred. Experiments thus show that bismuth adheres to the defect in the stomach wall, and that healing may take place in a crust so formed; this crust, however, is not always present. Comparison with control, animals showed that in those treated with bismuth the defects healed more rapidly. Digestion can go on while the bismuth deposit is present, although in *artificial* digestion the pepsin is carried down by the bismuth, and in this way digestion is hindered. The author says, that both experimentally and clinically, Fleiner's method of treatment is practically and theoretically correct, with the exception of the question of position (in reference to the site of the ulcer), which he shows not to have any influence in regard to the subsequent disposition of the bismuth.—*British Medical Journal*.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

The Microbic Origin of Chorea.—DR. CHARLES L. DANA, of New York, concludes that the seat of the trouble in chorea is the blood vessels and blood of the brain, with secondary changes in the brain tissue—the cause being some microbe or toxic substance, or both. In April, 1890, he published in *Brain*, an article on the pathology of chorea in which this was considered. In 1891, Dr. Henry J. Berkeley published in the *Johns Hopkins Hospital Reports* (vol. ii, No. 6), an article upon the germ causation of chorea. According to these authors, changes are found in the cortex and subcortical tissue of the cerebral motor areas and adjacent meninges. Dana details a case of Sydenham's chorea in which chronic leptomeningitis of the convexity hyaline bodies in the cortex, slight meningo-encephalitis, together with slight meningitis of the upper part of the spinal cord were found, and bacteriological examination showed diplococci in the proliferating tissue between the meninges and cortex with hyaline bodies in the cortex. Richter, in the *Western Lancet* (vol. xii, p. 529) refers to cocci found in the blood in a case of chorea. By others, bacilli have been found in the tissue and fungi in the pia mater. The case referred to by Dana, was a man of 34, who had a history of rheumatism at 10, and chorea began at 14. Severe recurrent attacks of chorea with intervals of several years, during which slight chronic symptoms were present, till 34. Patient had no headache, the mind was clear; viscera normal; no elevation of temperature. At the autopsy, the dura mater was normal. No excess of fluid in the ventricles. Brain congested. Over the convexity the pia and arachnoid were thickened and granular from the base of the first frontal convolution backward to the occipital lobe. Some thickening and congestion of the pia about the medulla and cervical part of the spinal cord. *Microscopical examination:* In the superior parietal lobule and upper central convolution, chronic proliferative thickening of the pia without exudate. Degeneration, with cellular infiltration of superficial or neuroglia layer of the cortex. Vessel walls slightly thickened. Numerous large, hyaline masses in the pia and just below it, diminishing in number down to the second layer of the cortex. These were found in those parts of the brain hardened by

alcohol alone. These masses did not stain, were irregular in size, averaging $\frac{1}{100}$ inch in diameter, sometimes around but not in the vessels; they were considered as indicating a morbid condition of the nerve tissue, although more or less due to the method of preparation. In the parts hardened in Müller's fluid these bodies were not found, but different kinds of hyaline bodies were found in the second and third layers of the cortex. These were round or nearly so, translucent; did not stain by carmine, hematoxylon or osmic acid. They were $\frac{1}{100}$ inch in diameter, and in the center of each was a nucleus. They appeared to be cells undergoing degeneration and bore no special relation to the vessels. The regions of degenerative change were where the microbes were found. There were no vascular changes. These conditions were mostly in the superior parietal and upper central convolutions. A few hyaline bodies and increased vascularity were found in parts of the lenticular nucleus, the claustrum and the external capsule. The pons and medulla showed but little that was abnormal. In the cord, meningitis with vascular changes in the upper part, especially surrounding and affecting the nerve-roots as they left the cord and medulla. *Bacteriological examination:* A few isolated diplococci on the inner surface of the meninges and in the cortex immediately below. These were one-half the diameter of a red blood corpuscle.—*American Journal of Medical Sciences.*

The Spinal Cord in Syphilis.—During the eight years that GERHARDT conducted the second medical clinic of the Berlin Charité, he observed 39 cases of cerebral syphilis. He quoted Virchow as follows: "Brain syphilis is as varied as skin syphilis, and spinal cord syphilis as varied as brain syphilis. Syphilis of the vertebræ is uncommon and usually provoked by some traumatic condition. The nerve substance of the spinal cord is less often the primary seat of syphilis than the blood vessels and meninges. Syphilis of the spinal cord follows the primary infection in a comparatively short time; cases have been observed three months after the initial sore. Then again syphilis of the cord may not occur until from ten to twenty years after primary infection. The blood vessels play an important role in spinal syphilis. In such cases, sudden paraplegia is not uncommon. When syphilis implicates the vertebræ, it shows a predilection for the cervical vertebræ. Gerhardt had also, during eight years, 102 cases of tabes. About one-half of these were syphilitic. He believes that many of these cases of syphilitic tabes are amenable to treatment if taken early enough.—*Münchener med. Wochenschr.*

Purulent Typhoid Cholecystitis.—In a previous communication (*Semaine Medicale*) GILBERT and GIRODE referred to infection arising from the bacilli of typhoid fever ascending into the biliary passages, and which constituted the chief action of typhoid fever on the liver. They present a new fact in corroboration of their original observations. A woman suffering from typhoid fever presented in the course of the affection, a swelling in the hepatic region corresponding to the gall bladder. During the convalescence of the patient, the swelling became less pronounced. Five months after the attack of typhoid fever, cholecystectomy was performed for a calculous cholecystitis. The gall bladder contained a large calculus and pus. In the latter the bacillus of Eberth was found, and pure cultures were made. The mucous membrane lining the gall bladder was thickened, and on microscopical examination, after appropriate staining, the typhoid bacillus were found in large numbers. This case, demonstrated not only that suppurative inflammation of the gall bladder may be

provoked by the typhoid bacilli, but that a suppurative inflammation may develop long after convalescence from typhoid fever.

Two New Signs of Dilatation of the Stomach.—It is not difficult to diagnose gastrectasia when it has attained any degree of development, but at the inception of the affection the difficulties which beset the physician are many. Many of the methods of diagnosis are impracticable in private practice. M. AUFRECHT directs attention to two new signs obtained by percussion. In percussing a stomach which has commenced to dilate, by means of a pleximeter, one obtains at certain points in the gastric region, a dulness more or less complete in lieu of the usual tympanitic tone. If the pleximeter is kept at the point of dulness and feeble percussion is made, after waiting a few seconds the dulness will be found to have been replaced by a tympanitic tone. This phenomenon is explained by contraction of the walls of the stomach on account of its hypertrophied muscular coat which is constantly present in gastrectasia. The second sign is a cracked-pot sound (*bruit de pot fêlé*) which is obtained in the immediate vicinity of the dulness already described.—*Semaine Médicale*.

Tabetic Arthropathies.—DR. GUSTAV SINGER refers to the symptomatology of tabetic articular affections. Their occurrence is spontaneous and sudden without pain and fever. They show a tendency to articular effusions, deformity, luxation, and a disappearance of the joints by resorption, as well as the formation of large masses of bone in the environments of the joint. Relative to the frequency of tabetic arthropathies opinion is divided. Charcot observes that in every ten cases of tabes, spontaneous fractures or joint affections occur. Marie observes their frequency in from four to five per cent. of the cases; whereas, Erb noticed only two cases of arthropathy in fifty-six cases of tabes. The two types of arthropathy differentiated by Charcot are atrophic and hypertrophic, the latter type being included under the designation anhrithis deformans. Virchow's conception of the affection is essentially that of a deforming joint affection, with primary destruction of the epiphyseal cartilage. Charcot maintains that the tabetic arthropathies are the result of atrophy of the anterior horns in the spinal cord, which he considers to be the trophic centers of the joints. Many writers have endeavored to show the relation between the arthropathies and peripheral nerve lesions; indeed, they have often noted atrophy of the nerves as they entered the nutritive foramina of the bones. The knee joint is most frequently involved; here belong genu recurvatum, valgum and varum of the usual forms. Subluxation backwards is infrequent. It is important to differentiate tabetic from other joint affections. The pronounced articular changes, with limited impairment of function and abnormal passive mobility without pain, is characteristic of arthropathy.—*Wiener Med. Presse*.

Transient Aphasia of Pneumonia.—M. CHANTEMESSE has observed in the course of many infectious maladies, notably in pneumonia, transitory aphasia without any discoverable lesion of the nervous system. In pneumonia the aphasia becomes manifest at the end of the second or third day, and is preceded ordinarily by cephalalgia, dizziness and formication in the right arm and right half of face. In some instances the latter symptoms are clearly hemiplegic. The aphasia may appear brusquely without loss of consciousness; whereas, in other instances, it may assume the veritable picture of an apoplectic attack. This form of aphasia corresponds with the form usually known as ataxic aphasia. The intelligence, at first obtuse, recovers itself after a few hours.

One will observe in other cases the occurrence of paralysis of the lower branch of the right facial nerve. If hemiplegia attend the attack, it can be complete; but it more often is incomplete and limited to the tongue, face, and right upper extremity. The sensibility and reflexes are ordinarily but little modified. In the more pronounced cases one can observe certain vasomotor phenomena, as redness, edema, and elevation of temperature in the paralytic zones. The paralytic accidents just described are not modified by the course of the pneumonia, nor do they bear any relation to the severity of the disease. The aphasia persists 4 or 5 days at the most, although it may disappear after 48 hours. The facial paralysis disappears usually with the aphasia; but the paralysis implicating the extremities may survive the aphasia. The pathogenesis of the aphasia is very obscure. We cannot attribute it to any material lesion, since the cure is so rapid. The cause must probably be sought for in the vasomotor system, which influences the contractility of the cerebral blood vessels.

Union Médicale.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Delirium Following Operations on the Eye.—DR. ENRIQUE LOPEZ, of Havana, Cuba, has recently published an article treating of the delirium which sometimes develops in individuals who have undergone operations for various diseases of the eye. Two forms have been described: a delirium of exaltation, somewhat similar to that produced by belladonna, and a delirium of persecution. The delirium has been attributed to many different causes. Some think that the action of atropin exerts a positive influence in producing it; others ascribe it to the occlusion of the eyes by the bandage after the operations; others, again, think that the weakness consequent upon the diet is an important factor in bringing it about. Many authorities say that alcoholism, frequently present, is of itself sufficient to produce the delirium. In the observations made by the writer the facts incline him to the belief that the delirium is only observed in individuals predisposed to insanity, with or without alcoholism, and in whom there only exist eccentricities of character, which may have passed unperceived by the physician—the mania, until then latent, breaking out after the operation, favored by circumstances which contribute to excite his imagination, such as the fear of losing the sight, diet, occlusion of light, etc. The access of mania is ordinarily temporary. It may last a few hours or several days, but it finally disappears completely. It varies in intensity from vague fears, and slight, hardly appreciable troubles of the intellect to a furious delirium which may require the use of the strait-jacket. If in a moderate attack the patient be convinced of the success of the operation by the uncovering of the eye, the delirium may sometimes be put a stop to; but in a more pronounced case this has no effect, the patients frequently saying that they see nothing, even after they have been shown that they can distinguish fingers, can read, etc. This delirium consequent upon operations is, therefore, only a form of mania in individuals already mentally alienated, or in whom the intellectual trouble was until then in a latent form. Dr. Lopez has always observed it in the old and atheromatous, which has made him think that this disease of the vascular system plays an important rôle in the production of cerebral troubles, and subsequently of maniacal paroxysms. It is not strange that the cause of

the delirium in question should be charged by some to alcoholism, which is a frequent factor in the production of atheromatous degeneration; in cases of this nature it takes the form of delirium of persecution. In conclusion, the writer cites three cases as examples of the maniacal forms he has observed. In the three forms of delirium the patients were atheromatous, the only circumstance which was common to them. In one case only was there addiction to liquor; in the second case there was hereditary disposition to insanity, and in the third case the patient was known to possess a melancholy temperament. The author thinks that the complication of the delirium might possibly be prevented by prescribing the bromide of potassium, associated with the hydrate of chlotal, before and after the operation.—*International Medical Magazine*.

Neurasthenia and Melancholia.—DR. BOISSIER has made a study of 60 cases of neurasthenia and melancholia, selecting only such cases as showed the least hereditary taint, and which came nearest to the pure melancholic condition without hypochondria or persecutory delusions, with the view of ascertaining the relations of neurasthenia to depressive insanity. He classified them, as nearly as possible, according to their graduation from the neurosis to the psychosis. With regard to the etiology, melancholia appears to be a stage of aggravation of neurasthenia. An examination of acute cases of melancholia reveals all the physical and psychic symptoms of the two disorders, but in a more intense degree than the ordinary chronic cases. In depressive melancholia all the symptoms of nervous exhaustion may exist and be combined in the same patient. Some, however, are aggravated, others unchanged, others still are modified or diminished by the immobility imposed by the psychosis. As regards the physical characters, the general resemblance of the two conditions is such that it is difficult to point out the difference with certainty, at least as a general rule. In stuporous melancholia, which, in a measure, is the crystallization of the neurasthenic condition, the patient loses all his energy, scarcely reacts at all to external impressions, and is wrapped up in his automatic sensations and fixed impressions, that form the central point of his insanity. The distress and extreme emotional nature of the neurasthenic are with his general lack of energy, the factors of his timidity and lack of self-confidence. Though this emotivity is less pronounced in melancholia, it exists, but is the less apparent the more depressed the patient. The outward signs, the facial expression, etc., are to some extent lacking. Even in stuporous cases the patient dreads any intercourse with strangers, as indicated by the tremor present. In other cases one can still note by the pulse or the flushing of the brow the cardiac irritation produced by the emotion. In the anxious hyperesthetic forms, on the other hand, where the depression is not so profound, the emotivity predominates, and the least external manifestations, or internal phenomenon, arouses in the subject the most terrible distress. The writer speaks of the unequal failures of the energies of the various faculties as characteristic of neurasthenia, while he regards the equal general deficiency of the whole, which is subject to variations in intensity, as differentiating melancholia from simple, depressed nervous exhaustion. The one is a paretic, the other a paralytic. Dr. Boissier concludes as follows: Neurasthenia is a morbid entity, of which the constant symptoms—headache, insomnia, distress, tachycardia, disorders of general sensibility, depression—are in relation with those of melancholia.—*Journal de Médecine de Paris*.

their mediate and indirect action through the toxins they secrete. From a clinical point of view they may present themselves at two different periods. During the febrile stage the disorder ordinarily takes the form of an acute delirium. During the post-febrile stage, or during convalescence, we find the so-called asthenic psychosis present; this is a more or less variable mental condition, consisting usually of a mental confusion, stupidity, clouding of the faculties, a pseudo-dementia. An intermediate form between these two may possibly be admitted to exist. The visceral psychoses are in reality genuine insanities from auto-intoxication. It may be said that where the intoxication is acute it shows itself as an acute toxic delirium, resembling alcoholic delirium, as in uremic insanity, when the intoxication is chronic, it generally induces a melancholic condition. Some cases resemble more or less paretic dementia. General or local anti-infectious antiseptic treatment is found to give excellent results. Although it is not possible to formulate a definite therapeusis, there are enough facts to show that in the infectious or auto-toxic insanities one must resort to the treatment of the infection or the auto-intoxication to relieve the mental disorder.—*Progrès Médical*.

The Influence of Diseases of the Ear upon the Development and Course of Insanity.—DR BJELJAKOW has recently reported the results of observations made in hospital in St. Petersburg on cases of insanity in which there was a marked inflammation of the middle ear. In the course of four years he had made 135 *post-mortem* examinations, and these showed 17.12 per cent. to have been suffering from internal otitis. Of these cases one was melancholia, one paranoia hallucinatoria acuta, eight paranoia hallucinatoria chronica, two secondary dementia, three epileptic insanity, four general paralysis, one acute delirium, one senile dementia and three hebephrenia. At the conclusion of his paper, the writer says that an inflammatory process of the internal ear frequently produces insanity, accompanied by hallucinations, which form of insanity often terminates in secondary dementia in unfavorable cases. The unilateral auditory hallucinations are usually due to an increased irritability of the cortical centers transmitted through the nerves of hearing. Sometimes the hallucinations are bilateral, which would tend to prove the existence of an auditory center in each hemisphere. Auditory hallucinations, due to disease of the organ of hearing, frequently excites hallucinations of taste, smell and general sensibility. In many of the cases there appeared to be a hyperesthesia as regards the subjective auditory perceptions, while the sensibility to hearing outward sounds was generally diminished. Salivation, which sometimes accompanies suppuration of the middle ear, is probably caused by irritation of the chorda tympani through nerves of the tympanic plexus. These patients also frequently suffer from attacks of precordial melancholia and pain about the pericardium, which may be explained as due to irritation of the auricular branches of the vagi nerves, and the eccentric perception of this irritation by the auditory brain centers. Disease of the internal ear sometimes seems to be the cause of epilepsy, and may bring about symptoms resembling general paralysis. On the other hand, otitis may cause unilateral hallucinations of hearing in general paralysis, which, however, are rarely met with in this disease.—*Journal of Mental Science*.—*Medical Review*.

FORMULÆ.

By GEO. B. SOMERS, M. D., San Francisco, Cal.

An Antiseptic Varnish.—BERLIOZ gives the formula for an antiseptic varnish which he calls "sterisol."

Gum lac (purified).....	3ix
Powdered benzoin.....	3iiss
Tolu balsam.....	3iiss
Chrystallized phenic acid.	3iii
Essence of cinnamon	
Saccharin.....	āā 3iss
Alcohol.....	ad O ii

The employment of this varnish is indicated wherever there is an abrasion of the mucous membrane, as in

diphtheria, mucous patches, hernia, etc. It adheres to the mucous membrane as well as to the skin, over which it forms a thin pellicle.—*Medical Record*.

Chronic Pharyngitis:

Iodine.....	gr. vi
Pot. iodide.....	gr. xii
Menthol.....	3i
Glycerin.....	ad 3i

S.—Apply with a camel's hair brush twice or thrice daily.—*Medical Press and Circular*.

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., San Francisco, Cal.

Mortality for June, 1894.—The deaths registered in 61 town districts of the State, during the month of June, in a population of 758,247, correspond to an annual rate of 14.76 a thousand, the total mortality having been 936. 80 deaths were due to zymotic diseases, giving an annual rate of 1.26 a thousand. Of these, 9 were due to diphtheria, 16 to cholera infantum, 15 to typhoid fever, 10 to diarrhea and dysentery, 14 to cerebro-spinal fever, 9 to whooping cough, 1 to croup, 3 to intermittent and remittent fevers, 2 to scarlet fever, 1 to measles, and 0 to small-pox. 232 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.66 a thousand. Of these, 148 were due to consumption, 53 to pneumonia, 26 to bronchitis, and 5 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.28 and .828, respectively. 96 deaths resulted from diseases of the heart, 7 from alcoholism, 1 from erysipelas, 32 from cancer, and 440 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 584,027, was 15.24. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, the lowest from Petaluma and vicinity.

METEOROLOGY.

Summary for June.—*Temperature.*—The normal temperature of the State for June is 71°, the average for June, 1894, was 66°; a departure from the normal of -0.5°. The highest monthly mean was 90°, at Salton, in the desert regions of Riverside county; lowest, 48°, at Cisco in the high mountain regions of Placer county; the maximum, 118°, at Salton, on the 30th; the minimum was 25°, at Boca, in the high mountain regions of Nevada county, on the 11th. The absolute monthly range was 93°; greatest local monthly range was 66°, at Orangevale; the least, 18°, at Point Lobos.

Rainfall.—The normal precipitation of the State for June is 0.31 inches; the average for June, 1894, was 0.68 inches; a departure from the normal of +0.37 inches. The greatest monthly precipitation was 3.49 inches, at La Porte, the least, nothing, at a number of stations.

Wind.—The prevailing direction of wind was westerly.

Unusual Features.—The unusual meteorological feature of the month was the continued and abnormally cool weather with unusual rains.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for June, 1894.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Hu- midity	WEATHER.			WIND.	FURNISHED BY—
	Mean.....	Highest	Lowest.....	Mean High- est.....	Mean Low- est.....	Mean Daily Range	No of Days Rain Fell.....	Total Rain- fall.....	No. of Clear Days.....	No. of Fair Days.....	No. of Cloudy Days.....	Prevail- ing Direc- tion.		
Auburn	66.2	95.0	53.0	67.3	51.6	15.7	3	1.38	81.0	15	14	3	S.W.	Southern Pacific Company.
Berkeley.....	57.1	76.0	47.0					1.11					S.W.	Obs. University of California.
Colfax.....														Southern Pacific Company.
Eureka.....	54.0	65.0	42.0	59.0	50.0	9.0	10	1.67	95.0	5	15	10	N.W.	Weather Bureau Dept. Agr.
Fresno.....	68.9	100	47.0	82.5	55.3	27.2	4	1.16	52.0	21	3	6	N.W.	"
Indio.....	80.5	103	62.0				0	0.00					W.	"
Los Angeles...	63.0	83.0	46.0	74.0	52.0	22.0	1	T.	74.0	10	20	0	W.	"
Monterey	59.3	88.0	50.0				0	0.00					S.	Southern Pacific Company.
Napa.....	64.5	87.0	47.0	74.8	54.2	20.6	5	0.85	74.0	15	12	3	S.W.	Station Napa Insane Asylum.
Oakland.....	59.5	82.0	46.0	69.4	51.7	17.7	5	0.95	73.0	17	8	5	W.	Chabot Observatory.
Paso Robles...	63.0	90.0	42.0	78.0	48.0	30.0	2	0.12	47.0	25	4	1	E.	Agr. Ex. Station.
Red Bluff.....	69.0	101	46.0	82.0	57.0	25.0	7	1.00	56.0	22	8	0	S.	Weather Bureau Dept. Agr.
Sacramento. ...	64.8	96.0	50.0	76.4	53.3	23.1	5	0.46	67.0	16	8	6	S.W.	"
San Bernardino	66.0	95.0	40.0	83.0	49.0	34.0	0	0.00	62.0	23	5	2	W.	A. K. Johnson, M. D.
San Diego.....	61.0	73.0	50.0	64.0	60.0	4.0	1	0.01	76.0	23	5	2	W.	Weather Bureau Dept. Agr.
San Francisco..	55.7	69.0	47.0	61.3	50.5	10.8	5	0.56	83.0	13	7	10	S.W.	"
Santa Barbara..	61.4	90.0	46.0	69.7	53.0	16.7	0	0.00	68.0	21	6	3	E.	Hugh D. Vail.
Santa Cruz.....	62.0	85.0	43.0	73.0	51.0	22.0	4	0.72		19	5	6	S.W.	W. R. Springer.
Yuma.....A. T.	79.4	108	55.0	95.5	63.3	32.2	0	0.00	42.0	27	3	0	W.	Weather Bureau Dept. Agr.

NOTE.—Relative humidity at Paso Robles is for 2 P. M.

T. means a trace of rain.

Blank (----) indicates data missing.

Departments.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: AUGUST, 1894

THE COMMENCEMENTS—COLLEGE OF DENTISTRY.

The commencement exercises of the College of Dentistry, University of California, were held at Odd Fellows' Hall, San Francisco, on Thursday evening, June 14, 1894. In conformity with the change in the term of the College, which is now uniform with that of other regular dental colleges in the United States, the exercises were held at a later date than in previous years.

The address on behalf of the faculty was delivered by JOSEPH D. HOGDEN, D.D.S., the degrees being conferred by MARTIN KELLOGG, M.A., President of the University.

The following are the names of the graduates: Edward Ellsworth Baird, William Henry Cavell, McCoy Chappell, Conrad Deichmiller, John Alvin Gibbon, Gilbert Fuller Graham, Robert Frederick Gray, Walter Simpson Jewell, James William Likens, William O'Rourke, Henry Powell, Jr., Walter Judson Taylor, Leander Van Orden, Jr., M.D., Thomas Augustus Vogel, David John Vogelman, William Henry Wadsworth, Walter Irving Wilcox, Charles Calvin Wood.

The total number of students in attendance during the past session was 132, the number of matriculates being 74.

NOTES.

The American Journal of Insanity.

The American Journal of Insanity, which has been edited and published at the Utica State Hospital for the past fifty years, has lately been sold and transferred to the American Medico-Psychological Association, of which Society it will henceforth be the accredited organ. The *Journal* will be edited *ad interim* by a publication committee consisting of Dr. Edward Cowles, President of the Association, Boston, Mass.; Dr. Henry M. Hurd, Secretary of the Association, Johns Hopkins Hospital, Baltimore, Md.; and Dr. Richard Dewey, Chicago, Ill., with the last named gentleman in immediate editorial charge. Until further notice it will be published in Chicago, Ill.

Committees of the State Medical Society.

The following are the Standing Committees of the Medical Society of the State of California, for 1894-'95:

Committee on Clinical Medicine, including Diagnostics and Therapeutics—David Powell, Marysville, Chairman; J. H. Utley, Los Angeles; W. Watt Kerr, San Francisco.

Surgery and Clinical Surgery—R. A. McLean, San Francisco, Chairman; C. L. Bard, Ventura; J. F. Morse, San Francisco; G. A. White, Sacramento.

Pathology and Pathological Anatomy—J. C. Spencer, San Francisco, Chairman; C. G. Kuhlman, San Francisco; D. W. Montgomery, San Francisco.

Diseases of the Mind and Nervous System—H. G. Brainerd, Los Angeles, Chairman; A. W. Hoisholt, Stockton; M. Gardner, Sacramento. W. E. Bates, Davisville; J. W. Robertson, Livermore.

Medical and Surgical Diseases of Children—E. S. Meade, San José, Chairman; Elizabeth Gallimore, San José; John Fife, Red Bluff; E. A. Follansbee, Los Angeles.

State Medicine and Hygiene, and Adulteration of Foods and Drugs—W. R. Cluness, San Francisco, Chairman; J. H. Stallard, San Francisco; Chester Rowell, Fresno; H. S. Orme, Los Angeles; M. M. Chipman, San José.

Gynecology—Luke Robinson, San Francisco, Chairman; Charlotte B. Brown, San Francisco; A. G. Anthony, Oakland; J. T. Stewart, Los Angeles.

Obstetrics and Puerperal Diseases—Wm. Fitch Cheney, San Francisco, Chairman; W. R. Cleaveland, Biggs; R. Beverly Cole, San Francisco; Elizabeth M. Yates, Woodland.

Histology and Microscopy—J. H. Wythe, Oakland, Chairman; Emma S. Merritt, San Francisco.

Indigenous Botany, Materia Medica, Pharmacy, and Medical Chemistry—W. P. Gibbons, Alameda, Chairman; S. B. P. Knox, Santa Barbara; R. G. Reynolds, Upper Lake; W. F. Wiard, Sacramento.

Medical Topography, Meteorology, Endemics, and Epidemics—J. H. Davisson, Los Angeles, Chairman; C. M. Fenn, San Diego; B. M. Gill, Dunsmuir; J. R. Laine, Sacramento.

Necrology—H. D. Lawhead, Woodland, Chairman; C. B. Bates, Santa Barbara; J. A. Owen, Red Bluff.

Prize Essay—W. F. McNutt, San Francisco, Chairman; W. S. Thorne, San Francisco; A. Abrams, San Francisco.

Dermatology and Venereal Diseases—R. L. Rigdon, San Francisco, Chairman; G. W. Stratton, Marysville.

Ophthalmology and Otology—H. Bert Ellis, Los Angeles, Chairman; Wm. Ellery Briggs, Sacramento; W. E. Hopkins, San Francisco; K. Pischl, San Francisco; H. I. Jones, San Francisco.

Laryngology and Rhinology—W. A. Martin, San Francisco, Chairman; J. D. Arnold, San Francisco; M. C. O'Toole, San Francisco.

Medical Jurisprudence—G. F. Shiels, San Francisco, Chairman; J. H. Bullard, Anaheim; C. B. Nichols, Sacramento; H. J. Crumpton, Sausalito; F. H. Payne, Berkeley.

Medical Education and Medical Legislation—Thos. Ross, Sacramento, Chairman; M. F. Price, Colton; R. H. Plummer, San Francisco; T. W. Huntington, Sacramento; C. N. Ellinwood, San Francisco.

Anatomy and Physiology—Geo. B. Somers, San Francisco, Chairman; R. P. Gober, Los Gatos; H. M. Pond, St. Helena.

Publication—A. P. Woodward, San Francisco, Chairman; S. R. Mather, San Francisco; H. E. Sanderson, San Francisco; Wm. Watt Kerr, San Francisco.

Executive Committee—Henry Gibbons, Jr., San Francisco, Chairman; G. W. Davis, San Francisco; J. Rosenstirn, San Francisco.

Committee of Arrangements—C. C. Wadsworth, San Francisco, Chairman;

W. Watt Kerr, San Francisco; J. M. Williamson, San Francisco; George B. Somers, San Francisco; J. H. Parkinson, Sacramento, Secretary.

Special Committee on State Library—Wallace A. Briggs, G. L. Simmons, Jas. H. Parkinson, T. W. Huntington, Wm. Ellery Briggs, Sacramento.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, June 26, 1894.

The President, W. F. WIARD, M.D., in the Chair.

New Member.—FLORENCE BOTSFORD POWER, M.D., was duly elected a member of the Society.

American Medical Association.—DR. J. H. PARKINSON, for the Committee on Subscription to the Entertainment Fund of the American Medical Association, reported that the amount contributed by the Society had been considerably in excess of what had been required, and there would, accordingly, be a dividend returnable when final settlement had been made by the General Committee.

DR. D'ARCY POWER presented several specimens of pigs' and frogs' eyes preserved in formaline, for which is claimed the power of preserving animal tissues without coagulation of albumin or fibrin. The specimens were in excellent preservation. A 1 per cent. solution is used for preserving tissues, the commercial article being a 40 per cent. solution. The speaker reported having used formaline in a case of senile gangrene, in which he had obtained favorable results.

DR. G. C. SIMMONS stated that he had obtained, at the Mount Sinai Hospital, a supply of the glycerine extract of the erysipelas coccus. He had been using this in two cases of cancer, but had, as yet, failed to observe any result. He hoped to report the cases in detail at a subsequent meeting. Two solutions are employed, one of which is given in doses of five drops, internally, the other in doses of twenty drops.

DR. T. W. HUNTINGTON exhibited a "Murphy Button" which he had recently used in a case of cholecystoenterostomy. Murphy claims to have succeeded in making 8 anastomoses in 10 attempts with this button. Dr. G. F. Shiels, of San Francisco, had succeeded in one case in which he used the button. The speaker demonstrated the method of operation, in which Dr. Murphy must be given considerable credit, at least for his ingenuity. Its success in practice remains to be demonstrated by its more general employment. The case in which the button had been used was one of hepatic calculi. The gall bladder was considerably distended, and was filled with stones, one being as large as a good sized cherry. The patient died, and at the autopsy, the button seemed to have done its work well, but the walls of the gall bladder had suffered irreparable damage before the operation. The speaker also reported a case of cholecystotomy in a woman 35 years of age. The gall bladder was very much enlarged, containing about 4 ounces of fluid. The liver was about four times its natural size; patient received immediate relief from pain, recovered quickly from the operation, and is now enjoying excellent health, attending to household duties, with, however, a permanent fistula. The cause of obstruction is doubtful, but it was evident that the contents of the gall bladder would soon have become purulent.

DR. T. A. SNIDER read a paper on "Cystitis and Hypertrophy of the Prostate."

DR. T. W. HUNTINGTON said these conditions are amongst the commonest of ills. Before we had a thorough understanding of urinal fermentation these cases gave us much more trouble, but now we understand that prophylaxis is most important. Formerly, inestimable injury was inflicted by careless manipulation in the use of instruments, now the most careful attention to asepsis was important. The first point was to ascertain the cause of the disease; when this was specific, it was more troublesome to treat. Gonorrheal cystitis was very

obstinate; he depended largely on topical treatment, in the form of irrigations, with a $\frac{1}{4}$ and $\frac{1}{2}$ per cent. solution of creolin. If this failed, he resorted to other remedies, such as had been mentioned by the author. Two operations were now recommended for the relief of prostatic enlargement: (1) the suprapubic incision and crushing, (2) castration. The removal of both testes in old men has been said to give speedy and permanent relief. A large majority of these cases are compelled to use the catheter, the retention of urine at night being one of the first troubles resulting from the enlargement. The speaker advised his patients not to try to void the urine immediately after rising, but to first walk about the room for five or eight minutes; they can thus avoid the catheter life for a long time. The explanation of this is very simple. In the prone position congestion results; when the patient arises and walks about this congestion is relieved.

DR. W. H. BALDWIN: I have had considerable trouble with a case of concentric enlargement of the prostate gland, with hypertrophy of the bladder. The patient has suffered from these complications for a long time, having constant pain, with retention of urine, every few weeks. I have used creolin solution, at first injecting about 2 ounces, but gradually dilating the bladder, so that I can now use about 10 ounces. I have used ichthyol, by the rectum. This gave relief, and the gland has decreased in size. There was no ascertainable cause for this trouble. The patient had suffered from dribbling of the urine for 15 or 20 years before I saw the case. Of late he has not been compelled to use the catheter.

DR. M. GARDNER: There are two remedies for this condition: opium, and irrigation and absolute rest. Beer is a common cause, which opium and morphine will relieve.

DR. D'ARCY POWER: Another cause of cystitis, that has not been mentioned, is dyspepsia. When a substance is thrown into the circulation that affects the mucous membrane of the bladder, we will frequently have an inflammation as a result. Ascetate of potash and atropine, internally, are useful drugs; using borax with carbolic acid, locally. Lately, he had used boracic acid or biborate of zinc. When the urine is alkaline he used boracic acid. The speaker believed in thorough dilatation.

DR. J. R. LAINE believed that the class of cases mentioned by Dr. Baldwin should be included under the head of strangury rather than cystitis. The class of cases mentioned by Dr. Power were rather acute cystitis, or irritable bladder, than the class that had been mentioned in the paper. When once hypertrophy of the bladder and hypertrophy of the prostate had been established, the condition was a permanent one. The speaker had had under his care an old colored man who suffered from prostatic enlargement. He had had retention of urine for a long time. The urine was drawn off, and subsequently, at the autopsy, an egg-shell concretion on the walls of the bladder was shown. This had collapsed when the urine had been withdrawn. He regarded bladder trouble as among the most severe of all the cases that presented themselves for treatment.

DR. W. A. BRIGGS: In ordinary cases of cystitis, without the complication of hypertrophy of the prostate, I endeavor to secure an aseptic condition of the bladder. I am dissatisfied with the use of the soft catheter, as in many cases it increases the irritation. I now wash out the bladder by gravity with a siphon syringe. The small nozzle of an ordinary syringe is introduced into the tube of the reservoir, raised 5 or 7 feet. The bladder is filled and emptied by depressing the reservoir, and this is repeated 5 or 6 times. I then leave in the bladder a considerable quantity of boracic acid solution. This maintains an aseptic condition for from 2 to 4 hours, and has also a refreshing effect. I should endeavor to overcome the contraction of the bladder by hydrostatic pressure, applied as already described. Internally, I use salol and methyl blue, which have given more or less satisfaction. Ten or fifteen grains of salol, three times daily, will frequently remove the odor of fermentation. I give the methyl blue in doses of $\frac{1}{2}$ to 2 grains, and I have also injected it into the bladder, apparently with some success. Where we have obstruction, it must be removed. If this be a stricture, it must be treated by dilatation or urethrotomy. When decided hypertrophy exists, I agree with Dr. Laine, that any treatment is exceedingly unsatisfactory. Where we have residual urine, it

must be drawn off with a catheter; following this, by irrigation. Strychnine may reinforce the tone of the bladder, especially when combined with the systematic use of the catheter to prevent overdistention.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, May 8, 1894.

The President, W. WATT KERR, M.D., in the Chair.

New Member.—ALBERT S. ADLER, M.D., was duly elected a member of the Society.

DR. W. F. McNUTT read a paper on "Vaginal Hysterectomy for Cancer, with a Report of 23 Cases."

DR. J. H. BARBAT, who was present at the operation on the first case reported, said that owing to the extreme gravity of the case, he was surprised to learn that she was still alive.

DR. R. BEVERLY COLE said he recognized that certain cases may be prolonged, but taking the aggregate, he questioned whether the promise is equal to the risk. A large percentage of cases operated upon died, as a direct result of the operation. In Dr. McNutt's experience, the mortality had been 13 per cent. Another question to be considered, was whether all these cases were cancers. He knew of at least a dozen cases that had been pronounced cancer by celebrated microscopists in this country, and refusing to be operated upon, seemed to be going to sure destruction; yet they still live. Many cases are operated upon that are not cancer; in fact, there is a tendency to operate too much nowadays. The speaker had operated upon 7 cases, and they had all since died from recurrence of the disease; none dying as a result of the operation.

DR. JAS. SIMPSON said all his cases had died naturally. He had never advised operation. It was true that a tedious death, with excruciating pain and continuous suffering, is more terrible than to die under the surgeon's knife, and this may justify an attempt to relieve the condition.

DR. M. KROTOSZYNER did not regard this subject from the standpoint of Drs. Cole and Simpson. A limited number of cases can be saved by an operation, there being no recurrence for the remainder of their lives. Some say that if there is no return within 12 months, the possibility of a relapse is greatly lessened. Mammary cancer will probably not return if there is no evidence of recurrence at the end of two years. It is the physician's duty to prolong life, even though that life be a miserable one. If Dr. McNutt, in his 23 cases, prolonged the life of even one of his patients he was fully justified in operating.

DR. A. LILIENCRANTZ had operated on one case three years ago, and she was still alive. He had had cases that gave bad results, and others in which the results were good. Nine years ago he had operated for cancer; it returned in two years and he again operated, removing it, and there is as yet no evidence of recurrence. He thought the chances were at least even, and while he would not recommend an operation, preferring that the patient should make the choice, he certainly favored interference, and were he so unfortunate as to be the subject of a cancer, he would certainly have it removed at once.

DR. W. F. CHENEY said: Leopold, of Dresden, has a record of 75 cases that have been under observation from one to five years, and there has been no return in 72 of them.

DR. McNUTT, in replying, said: There was no hereditary history in his cases, the microscope was often unnecessary for diagnosis, but as he had previously stated, he often employed it to discover the direction of extension of the disease, whether laterally or only from the cervix uteri. After adhesions had formed he regarded the prognosis as very grave.

American Medical Association.—THE PRESIDENT stated that the Committee of Arrangements of the American Medical Association had assigned Tuesday evening, June 5th, for the entertainment to be given by the County Society. He mentioned the features for which other evenings had been allotted, as well as the fact that a Lady's Committee had been appointed to give

special attention to ladies accompanying members of the Association. On motion, the Society decided, in addition to its contribution to the general entertainment fund, that it would give an independent entertainment. The following committee, comprising the original members, with the addition of some new names, was then appointed: C. G. Kenyon, H. Gibbons, Jr., Jas. Simpson, W. F. McNutt, R. Beverly Cole, T. B. DeWitt, C. C. Wadsworth, A. P. Woodward, and the President.

Code of Ethics.—On motion, the President and Secretary were empowered to issue credentials to delegates to the American Medical Association. Said delegates being instructed to vote in favor of retention of the "Old Code."

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, May 29, 1894.

The President, JOHN F. MORSE, M.D., in the chair.

DR. T. C. RETHERS read a paper on "Skin Grafting According to the Method of Thiersch." [Published at p. 474.]

DR. DUDLEY TAIT: I consider all other methods of grafting inferior to that of Thiersch, and I quite agree with Dr. Rethers regarding the plan of allowing the wound to first granulate, especially in large wounds.

DR. M. HILDEBRAND: I did not hear all of this excellent paper. As to the method, I saw it used after the Franco-German war with success.

DR. K. PISCHL: I have had a good chance on several occasions to use Thiersch's method in cases of entropion and in cases of long standing blepharoadenitis where the margins of the lid lose their sharp border and become rounded and very often the lid turns inward, the cilia touch the cornea and as a result keratitis sets in. The operation of skin grafting here brings good results, and is performed as follows: The edge of the lid is cut laterally thus dividing it into two parts, the inner one containing the conjunctiva, the outer the skin and cilia; into the resulting gap, a piece of the mucous membrane of the nose or vagina is placed and secured by a stitch. I would like to ask Dr. Rethers if, as a rule, the epithelium heals very readily? I have noted that where the entire thickness of the skin in large pieces was used, there was always sloughing, but underneath there was a new formation. What is the best method for covering large surfaces?

DR. TAIT: In transplanting skin it is best not to use sutures to retain it in place, for by so doing the vitality of the graft is destroyed.

THE PRESIDENT: Thiersch's method is very good in some cases. It is best not to attempt to replace scar tissue; in that we need the whole thickness of the skin. I remember where, in an operation on the palm of a child's hand, the cicatricial tissue was dissected away, leaving exposed the tendons, a large flap of skin of the chest wall was dissected up and stitched to the edges of the wound, and the arm and hand fixed in an immovable condition across the chest. In five weeks the pedicle of skin was cut through and the hand thus released from the chest wall. The result was very fine, the skin of the palm being quite soft and pliable. In this case thin skin grafts would not have answered.

DR. PISCHL: I am very glad to hear this. In one case of mine, Thiersch's method could not be used; it was a case of burn where all four of the lids were turned out. I therefore used a piece of skin the whole thickness. This was not a complete success, though there was no more ectropion. On a lower lid the same method was used and sloughed out. I do not see how one can get any results unless stitches are used, especially in the eye lids.

DR. TAIT: The case mentioned by Dr. Morse was different from Thiersch's skin grafting, where the skin is carried to the part. In that case the part was carried to the skin and held there till firm growth had been established. I know it is the practice of the German surgeons to use stitches on movable parts.

Inflamed Hydrocele Simulating Hernia.—DR. G. C. MACDONALD reported a case occurring in his practice, as follows: Last Saturday I was called by telephone to meet two other medical gentlemen in consultation on a case of "strangulated hernia." On examination I found a tumor occupying the scrotum, there was a hydrocele extending upward into the canal, and also another

at the bottom of the scrotum, the middle being constricted, like an hour glass. The patient, who was 26 years of age, gave the following history: One year ago this month he had received an injury, a blow upon the testicle, which swelled to the size of a hen's egg. There was no pain. In July or August a physician diagnosed it as a "strain" and gave him a stimulating liniment to apply. Later on, lotions of turpentine were used, vaseline applied, and a truss given him by another physician. By December the tumor had grown considerable and the truss gave pain. May 5, 1894, the patient was in considerable pain, and could walk with difficulty. On the 9th, the attending physician said that it was a strangulated hernia, and hot applications were applied. This diagnosis was confirmed by a consultant, and an operation was proposed. The patient took chloroform badly, and artificial respiration had to be kept up for 15 minutes; this made it necessary to hasten the operation. A tumor was found which involved the body of the testicle and tunica vaginalis, the latter being baggy but tight in the center. The specimen, also the truss worn by the patient, was presented to the Academy museum.

THE PRESIDENT exhibited the case reported at the previous meeting [*vide* MEDICAL TIMES, vol. viii, p. 447], upon which he had performed cholecystectomy.

DR. DUDLEY TAIT: I do not believe that it is necessary to ligate the duct and then turn in the edges, suturing after it is divided, similar to the method as formerly used in appendicitis. Simple suturing would be sufficient, and the sloughing out of the sutures carries out my theory. On examining the patient. I see the incision is rather low, but Dr. Morse says that it was directly over the tumor? I also see that it is oblique, that in my opinion is preferable to a vertical incision.

Hysterectomy, with Exhibition of Specimens.—DR. H. KREUTZMANN exhibited three uteri, and gave the histories of the cases as follows: CASE 1 was that of a woman 54 years old, who for the past 9 years has not menstruated and has been in very poor health. Last year I saw her first, and on examination diagnosed her case as fibroid; also, retroflexion of the uterus. At the time I did not feel justified in removing the uterus, and bent my energy to relieving the retroflexion. A pessary was tried, but with no success. Vaginal fixation was also tried, but failed. The patient afterward left the hospital. Later on, she came back, suffering with acute pelvic peritonitis. Afterward there remained a hardening on the left side of the pelvis, causing much pain and trouble, there being present a fibroid, an intractable retroflexion and a pelvic abscess. I decided to remove the uterus on the strength of these indications. The operation was easy; the abscess in the *cul-de-sac* contained about a tablespoonful of pus. The recovery was uninterrupted. CASE 2.—The second specimen shown was a uterus, the seat of carcinomatous infiltration of the cervix, extending above the os internum, removed from a woman 42 years of age. Patient had suffered for the past 2 years with considerable hemorrhage from the uterus, and had been curetted twice before she came under my care. On examination, the cervix was found large, thick and nodulated, and no ulceration. Diagnosis, carcinoma. A piece was excised and examined by Dr. D. W. Montgomery, who corroborated the diagnosis. During the operation there was much hemorrhage, almost constant sponging being necessary. Under the circumstances, both ligatures and clamps had to be used. One clamp opened up and another slipped, the tissues being very friable. The woman died on the third day. At the autopsy there were signs of septic peritonitis, and a loop of the intestine was found in a half gangrenous condition. This loop had by some means slipped between two of the many forceps left *in situ*. CASE 3.—A third uterus shown had been removed from a woman 45 years old, that very morning, and was the seat of a carcinoma of the body. Patient gave a brief history of having menstruated last 2 years ago, and for one year having had an almost continuous flow of blood. On entering hospital she was quite anemic. The uterus was large, with no apparent cancerous manifestations in the cervix, and there was a pinkish discharge from it. The cervix was then dilated and a thorough curettement done. The resulting granular mass was examined by Dr. Montgomery, and a diagnosis made of carcinoma of the glandular type. In the operation ligatures were used.¹

¹ The patient has since made a good recovery.

DR. DUDLEY TAIT read a paper on "Gastrostomy by Witzel's Method for Primary Cancer of the Esophagus." He said: The idea is to prevent leakage into the surrounding tissues. Whether this can be done or not in one or two sittings is the question. I think the surgeon should not urge the necessity of the operation; rather let the patient do that; but there is no doubt that it prolongs life for several months.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular meeting, June 11, 1894.

L. C. LANE, M.D., in the Chair.

DR. W. A. MOORE read a paper entitled "Muscular Atrophy Consequent upon Certain Articular Lesions" [to be published].

DR. A. H. TAYLOR read a paper entitled "A Discussion of the Lines of Treatment of Pelvic Abscess" [published at p. 479.]

DR. F. B. CARPENTER objected to flushing the peritoneal cavity as a routine procedure after laparotomy for pelvic abscess on the ground that infectious material is thus easily carried to remote parts of the peritoneum, thereby greatly increasing the danger of peritonitis. Simple sponging of the abscess cavity is efficacious and is less dangerous. The iodoform gauze tampon is a safe drain. In a few hours satisfactory adhesions form protecting the peritoneum.

DR. EMMET RIXFORD said the question of flushing depended somewhat on the individual case and on the virulence of the infectious agent. In those cases in which the pus is small in amount and the abscess cavity pretty well shut off from the general peritoneal cavity, especially if the infection is virulent, simple sponging is to be preferred, and the cavity drained with iodoform gauze packing. Where the peritoneum is extensively involved flushing is demanded and should be carried out most thoroughly. He referred to two cases of extensive suppurative peritonitis of appendicular origin cured by Dr. Abbé, of New York, by copious flushing and complete drainage through median and lumbar incisions.

DR. R. W. MURPHY said he had had a number of cases of pelvic abscess, and had found aspiration through the vagina to give satisfactory results.

DR. L. C. LANE said the writer of the paper had made no reference to hematocoele which often simulates pelvic abscess. In some cases there is a considerable amount of blood found and clots requiring the passage of a large instrument. In other cases the blood is infected and becomes rapidly foul, requiring immediate and free opening and flushing. In this latter proceeding he preferred to use a gentle stream such as is given from a rubber tube acting as a siphon. Again, pus will often find for itself an outlet through the vagina, or the intestine, or the groin. He mentioned a case of large pelvic abscess which had not been operated upon. The patient died of other trouble sometime afterward. In the site of the abscess all pus had disappeared, and in its place was a calcareous mass three inches in diameter.

DR. TAYLOR, in replying, said that flushing when properly carried out, adds little to the danger in such cases. The peritoneum can and should be shut off with suitable sponges and the water poured in from a pitcher.

DR. J. A. SIMPSON reported "A Case of a Child Crying in Utero" [published at p. 495].

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Overcrowded Paris Medical Faculty.—Provincial Faculties Deserted.—Female Medical Students.—M. Malassez, Charcot's Successor in the Academy of Medicine.—M. Raymond Succeeds Charcot in the Paris Medical Faculty.—Sterilized Milk at the Charité.—Dr. Buden's Method of Preparation and Feeding.—Deaths of Distinguished Medical Men.

The hospital reform epidemic has passed from an acute to a chronic stage. No further evident steps have been taken to effect the changes so loudly

demanded; what is going on in official centers, if anything, is not whispered abroad. Professor Brouardel, Dean of the Paris Medical Faculty, is in great distress, trying to solve a problem that cannot be solved—how to find space and “subjects” for more than twice the number of students the Paris Medical Faculty can accommodate or provide bodies for. The dean tries to combat the difficulty by publishing addresses assuring the students their early years of medical study would be passed with as much advantage and more healthfully in a provincial medical faculty. The Minister of Public Instruction, in a circular addressed to the rectors of provincial universities and faculties, draws their attention to the sad, undeniable fact that the provincial medical faculties and schools are empty, whilst those of the attractive metropolis are full to overflowing. And the said rectors are, in French parlance, “invited” to do their best to play the part of Dame Fortune at the wheel, and work one of those changes she knows so well how to do—fill the provincial schools and thus relieve the Paris Medical Faculty from the terrible glut of medical students which increases year after year. The poor rectors must be severely taxed by this ministerial appeal, as even with the best will in the world, they are powerless. How can they by their individual efforts fill medical schools which fail to attract students by facilities offered for medical and scientific studies? This question of the desertion of the provincial medical faculties and the overcrowding of the Paris Medical Faculty was agitated a few years ago, and was ably treated by Dr. Louis Malassez in a pamphlet on the subject. Until distinguished professors find it worth while to be exiled into the provinces, these faculties will be deserted. To make this exile bearable to those accustomed to work in medical and scientific Paris centers, the salaries must be good, the laboratories well appointed, and the laboratory budget good. None of these desiderata exist; therefore, to the despair of Professor Brouardel and the Minister of Public Instruction, the Paris Medical Faculty is congested.

In the Capital, work and play are both easy; not only the male students crowd into the Paris Medical Faculty, but also women students. The number of women, dressers and internes, is a proof that there is a large number of lady medical students to add to the distress of Professor Brouardel, who can scarcely find standing room for his pupils of the sterner sex. Nevertheless, the women are treated with every consideration and courtesy in the French Medical Faculty and its hospitals. Some of these, who have taken their degree, are practising successfully; they excite less curiosity than formerly, and gain more sympathy. Mme. Stanislas Meumer, the talented wife of the distinguished Professor of Geology at the Museum of Natural History, has described a lady medical student of American origin in her clever novel entitled *M. de Prerannes*.

The Paris Academy of Medicine has, by the election of M. Malassez to replace M. Charcot among its members, shown that it can be influenced by real merit as well as by intrigue—the most frequent conqueror in medical and scientific elections. On a former occasion the same learned body accorded to M. Malassez the Lacaze prize of 400 francs for his researches in tuberculosis. This honor was unsolicited and was consequently increased tenfold both for the donor and the receiver. The Academy of Medicine has shown in these two instances a perspicuity and rectitude of judgment other scientific and medical bodies would do well to imitate. M. Malassez has published several important contributions to scientific literature on red blood corpuscles, on tuberculosis, and on syphilitic lesions; on cysts of the face, on psoriasis, on the cancer parasite, and other subjects.

M. Raymond is elected as M. Charcot's successor to the Chair of Nervous Diseases at the Paris Medical Faculty. M. Raymond's friends naturally rejoice at the election, but among the thoroughly impartial some surprise is evinced that Charcot's successor has not been chosen from among specialists in nervous diseases, more especially as there were distinguished candidates for the chair belonging to that category. On the death of Dr. Charcot, Dr. Brissaud was appointed to give the clinical lectures at the Salpêtrière until a permanent successor was elected. Dr. Brissaud's excellent lectures will be continued until November.

Dr. Budin, in order to be perfectly certain that the nurslings in his wards at the Charité Hospital are provided with pure milk, thoroughly sterilized, has organized a laboratory in which, daily, a sufficient quantity is sterilized for the

nourishment of the infants born in his wards and those brought to his Friday gratis consultations. The sterilization is effected in the following manner, with the aid of an apparatus, constructed by M. Gentile, which consists of a metal receiver tinned inside, a bottle holder, graduated bottles, and india-rubber automatic stoppers. The sterilizer can be big or small; the bottle holder must be in proportion, holding five, ten, or twenty-five bottles. The bottles are graduated; each line marks 25 grammes; the total quantity contained in each bottle varies from 50 to 200 grammes. The neck of the bottle is surmounted by a flat, smooth, emery-polished surface or rim. The automatic stoppers are small india-rubber discs, presenting on their lower surface a central, nail-shaped prolongation. In preparing the sterilized milk, care must be taken not to fill the bottles beyond the upper line; when thus filled, they are placed in the bottle holder, which, in turn, is placed in the sterilizer containing cold water, reaching the level of the milk, but not beyond. The lid is placed on the receptacle, and the water is gradually heated until it reaches boiling point. This heat is maintained for 40 minutes. The bottle holder, full of bottles, is then removed from the boiling water, and care must be taken during this operation neither to displace nor to touch the stoppers. As soon as the milk temperature lowers, the stoppers adhere closely to the bottles, and a depression is observed in their center, which attains its maximum when the milk is thoroughly cold. The depression results from the vacuum created by the condensed milk vapor which, during ebullition, forced out the air contained in the space intentionally left in the upper part of the bottle. The adherence of the india-rubber disk, and its central depression, proves that the vacuum exists; consequently, that the sterilization is complete. Another proof is furnished as follows: If the bottle is turned with its neck downwards, and a sharp tap given on the base of the bottle, the whole column of milk is displaced, and falls with a sharp tick to the other side of the bottle. Dr. Budin does not consider that the india-rubber bottles thus stoppered are altogether satisfactory. One reason is that emery-polished bottles are easily obtainable in cities; this is not so in country places. There is another important drawback. If bottles thus stoppered are shaken or knocked about, which is inevitable if they are removed from place to place; the disks become detached from the bottles. To remedy this, Dr. Budin has made india-rubber capsules, resembling the metal capsules used for mineral-water bottles. On each side of the upper part of the capsules is a very small aperture in order to prevent the capsule from bursting when distended by the vapor rising from the heated water. The lower part of the capsule terminates in a circular ridge which clasps tightly the neck of the bottle. These capsules can be used for any bottles. Care must be taken when the bottles are removed from the sterilizer to ascertain that they are fitting close to the bottles: the vacuum is not perfect, air slowly reënters; but, nevertheless, Dr. Budin affirms that the sterilization is more than sufficient as a safeguard for 24 hours. During intensely hot weather, milk thus sterilized has remained intact for several weeks. Sterilized milk must not be kept longer than 24 hours. Each bottle should contain only sufficient for one meal; if 50 grammes are sufficient, one holding that quantity must be chosen; if it be not finished, it must be thrown away, not reserved for another time—a fatal piece of economy, not unfrequently practised. When it is required to open a bottle, it should be first plunged into hot water, in order to warm the milk. The edge of the india-rubber disk is easily uplifted and thus removed. The milk should then be tasted, to ascertain that it is of the right temperature and flavor. A special apparatus, invented by Dr. Budin, called a "galactophore," is then placed on the bottle. A galactophore consists of two tubes, one coiled round the other. Air passes through the coiled one, milk through the perpendicular tube, and of an india-rubber cork. The tubes are passed through the cork and placed in the bottle of sterilized milk. An india-rubber nipple, steadied by a bone disk, is fitted into the upper aperture of the galactophore. It is evident that this instrument, like all others, must be kept scrupulously clean. Its extreme simplicity renders this easy.

Dr. Budin condemns the habit of diluting milk with water. Sterilized, unwatered milk is given in his service at the Charité Hospital and to the infant out-patients. Notes have been collected by Dr. Budin and Dr. Chavane, demonstrating that new-born and older infants are not sufficiently nourished

with milk diluted with water, and clearly showing the value of Dr. Budin's method.

The medical profession has lost many of its members this winter by death. Dr. August Ollivier, Dr. Quinquaud, Dr. Jubel Renoy, Dr. Brown-Sequard. Dr. Quinquaud's death occurred after a short illness, likewise that of Dr. Jubel Renoy, who both swell the long list of martyrs to science. Dr. Quinquaud was an indefatigable worker. He solved the problem, how to continue laboratory research of the highest scientific merit with medical practice. He was a distinguished scientist and an able physician. His specialty was skin diseases. Overwrought and overworked, he was unable to resist an attack of influenza, which proved fatal after a few days' illness. Dr. Jubel Renoy fell a victim to typhoid fever, which, it is said, he contracted from his patients. Dr. Jubel Renoy rendered popular the treatment of typhoid fever by cold baths. Dr. Brown-Sequard, well known as a physiologist, and from his works on nervous diseases, of late years brought himself more prominently before the public by his "Sequardine." He was over 70 years of age when he died. Dr. August Ollivier, who occupied a most distinguished position in the profession, had been for several years ailing. He was 50 years of age when he died.

NEW YORK.

The Advantages of Southern California for the Consumptive.—Disease Notification Placards.—The Multitude of Doctors in Los Angeles.—Sign Oddities in St. Louis.—Medical Schools and Dispensaries.—St. Louis City Hospital.—Zander Institute.—Washington; the National Museum, Smithsonian Institute and Army Medical Museum.—Johns Hopkins' Medical School and Hospital.—The University of Pennsylvania and Wister Institute.—College of Physicians of Philadelphia.—New York Academy of Medicine, Medical School and Dispensaries.—Harvard Medical School.—Warren Museum.

En route to Europe, my first stopping place was Los Angeles. Here, as well as in the beautiful suburbs, nature has been lavish with her endowments. With interminable orange groves and luxuriant vegetation, enveloped in an ideal climate, it may be truly signalized as a Mecca for individuals seeking the advantages of good air which is constantly on tap. There is a consensus of opinion among phthisio-therapists that free drainage of the lungs with pure air constitutes not only the best curative, but the best preventive agent of pulmonary tuberculosis. It is not altitude, nor humidity, nor even dryness which determines these results; it is simply an atmosphere destitute of foreign admixture. The air may be equally pure in localities other than Southern California, but it is the uniformity of the climate, enabling the individual to live out of doors for the greater part of the year, that makes the climate of this section of the world so desirable. Consumptives are not so often seen as heard in Southern California; that is to say, they do not betray their presence as much by their physiognomy as they do by their cough. Clinicians have neglected to develop the diagnostic value of cough in its relation to certain anatomical conditions peculiar to phthisis, but it may be hoped that phonographic registration of coughs will soon establish something definite in this direction.

I was impressed with the large placards used by the authorities to indicate the presence of an infectious disease in the houses of some of the inhabitants. In San Francisco the placards employed are so small and so inconspicuously located that they fail to accomplish the object for which they were intended. Of course, such placards are of very little real value, and will be supplanted in the future by more certain means of isolation. If prophylactic medicine fails by the establishment of sanitary measures, or by protective inoculation to prevent the development of infectious diseases, then the dwellings of the future will be provided with an emergency abode, remote from the main dwelling, as a means of isolation.

There is no dearth of physicians in Los Angeles. You see their signs everywhere. The facades of some of the buildings are literally plastered with them. Unlike some of our San Francisco physicians, one sign is quite sufficient to indicate their whereabouts. In no city have I seen so many signs used to indicate the abode of physicians as in San Francisco. Why this sign perversion

should exist, I do not know, If I were a stranger it would strike me as an evidence of disordered vision on the part of the inhabitants. At any rate, I should imagine that this sign multiplication would make polyopia rampant in our beautiful city of the west. The building of the Medical College in Los Angeles is certainly not imposing, but this deficiency is amply compensated by a well organized Faculty of conscientious physicians.

If sign multiplicity characterizes medical San Francisco, St. Louis is distinguished by sign oddity. In riding through the streets of the latter city, my furtive attention was directed to the following signs: Dr. Possinger, dosimetric physician; electricity as administered by Dr. Jones will cure all curable diseases; Dr. Amway, hygienist, etc., etc.

St. Louis is a city of medical schools and free dispensaries. I counted as many as 14 medical schools in St. Louis, and this list does not include many schools not reckoned under the caption of colleges in the directory. There is even a school of osteopathy established by a bone setter. It appears in St. Louis as if the physicians had resolved themselves into factions for aggrandizement or protection, with a medical college for their stronghold and a titular Professor as an egis; and any physician who escaped the latter distinction was only daunted by the labor of asking for it. It would be an act of supererogation to say that this division of strength is attended with dire consequences. Competition in medical education, thus engendered, is not exempt from the odium which accompanies the competition of trade. Even by a most charitable process of ratiocination, such medical colleges are nought else but mills, but unlike those of the gods, they grind quickly. I overheard the following conversation between two men in St. Louis. Said the one, "Hello, Bill! you ain't driving a car no more?" "No," said Bill, "it's too hard work; and, besides that, I'm going to become a doctor. It's a blamed sight easier to wear a plug hat and glasses than to drive a car. Doc. (referring to a professor in a regular school) said I'd get through all right if I paid the fees." This conversation I hope will not be accepted as an apt illustration of the status of medical education in St. Louis. From the chaff, medical colleges may be selected in St. Louis which stand prëminent in the cause of medical education. No criticism could sully the reputation of some St. Louis professors, whose fame is national. The oldest medical school in St. Louis is the "Missouri Medical College," and its looks do not belie its age. Another building is in process of construction, to be completed in October of this year. Among the other medical colleges worthy of mention are Barnes' Medical College, Beaumont Medical College and The St. Louis Medical College. The latter institution has well equipped laboratories. The tendency of medical education throughout the colleges of the East is to supplant the lectures by practical laboratory instruction, an innovation which can only merit approval. The medical lecturer of to-day must not exceed his province as an expounder, nor subvert the object of our textbooks, which are sufficiently adequate to replace the antiquated didactic lecture.

The St. Louis City Hospital may be placed on a par with the City and County Hospital of San Francisco, vieing with the latter in antiquity and other undesirable conditions which conduce to make up a poor hospital. Some of the St. Louis newspapers report the transactions of the local medical societies, a custom which is certainly not worthy of imitation. If the public must be informed of matters medical, let the material be served in a delectable manner through the medium of popular treatises or lectures. A practice, worthy of imitation, in the St. Louis papers, is the publication of the cause of death under the death notices.

St. Louis has a novel institution called the "Mechanico-Therapeutic and Orthopedic Zander Institute." This institute is fitted out with Dr. Zander's running machinery for giving mechanical massage. The object claimed by the inventor, Dr. Zander, of Stockholm, is essentially this: that by means of mechanical apparatus the prescribed massage movements could be executed with perfect rythm and exact system. The plant is extensive and cost, so the attendant informed me, \$30,000. There is, perhaps, no more advantage in mechanical than in manual massage, and perhaps very little in either, to the extent ordinarily advocated.

Washington possesses many things of interest to the student of medicine in the National Museum, Smithsonian Institution and the Army Medical Museum.

The National Museum has one room, devoted to the study of comparative anatomy, which is singularly attractive. As an introduction to an interesting series, is one illustrating the homologies of the bones in mammals, beginning with the skeletons of a man and a horse. The Smithsonian Institution has one of the most interesting collections for the study of pre-historic anthropology. The Army Medical Museum is replete with interest. Here you find the library of the Surgeon-General's office and the museum. The medical library contains 110,000 bound volumes and 150,000 pamphlets. As an index to this library, 16 royal octavo volumes are necessary, and its arrangement is a masterpiece. A fact not generally known is this: that books may be obtained through some reliable library and sent by express to any part of the United States of America. The museum contains cases illustrating the evolution of certain instruments, like the microscope, speculum and obstetrical forceps. Beginning with the Jansen microscope of about the year 1590, and consisting of two cylinders of sheet iron and a simple lens, the development of the instrument is carried through successive stages until the modern instrument is attained. In the museum may be seen a lancet used by John Hunter, as well as a set of surgical instruments used during the war of the Revolution by Dr. Benjamin Treadwell. The instruments are exceedingly formidable, dull and rusty. The knives approach a sickle in size and appearance; the retractor looks like a trident, while the bullet extractor resembles the tongs of a blacksmith. The specimens contained in the museum are too famous to warrant cursory description. Here may be found the most complete collection of Indian crania, over 3,000 in number, and of exceptional value for ethnological study. The pre-historic crania of the mound builders are exceptionally good. In the museum may be found an interesting skeleton illustrative of that rare affection, osteomalacia. The skeleton weighed 2 lbs. 13 ozs.; the limbs are mainly affected, and many of the bones could be cut with scissors; many of the joints are ankylosed and there is an abundance of fractures. There has been recently added to the museum, and imported from France, illustrations in wax of skin diseases. These are exceedingly valuable for purposes of instruction.

An ideal institution is the medical department of the Johns Hopkins University. Generously endowed and conducted by men of national reputation, like Osler, Welch, Kelly and others, it is a fitting monument to the memory of its founder. The Johns Hopkins Hospital is designed for cases of acute disease and cases of chronic disease are not admitted, except temporarily. At the time of writing, there are about 275 patients in the Hospital. The library of the Hospital contains about 3,000 books, and copies of all the leading domestic and foreign journals are kept on file. The Hospital is conducted on thoroughly modern methods. A clinic, largely visited by physicians, is the gynecological of Dr. Howard Kelly. Dr. Kelly has a prodigious amount of material at his disposal. He is an expert at ureteral catheterization. For this purpose he employs large urethral specula. After elevating the hips of the patient, the bladder balloons like the vagina when a Sims' speculum is used. By means of reflected light and manipulation of the urethral speculum, the ureters are readily brought into view. He is so expert in ureteral catheterization that he often dispenses with the speculum, summoning aid from the *tactus eruditus* only. Dr. Kelly is the youngest and busiest man in the faculty. Photography is employed extensively in all the clinics. All the members of the medical staff of the hospital are active workers. They have a medical society, as well as a medical historical society, and they issue a publication known as the "Bulletin of the Johns Hopkins Hospital."

The hygienic laboratory of this university is not so thoroughly equipped as is that of the University of Pennsylvania. The latter may be regarded as a model worthy of imitation. It is a university within a university. In fact, the University of Pennsylvania, covering 40 acres of ground, is more suggestive of wealth and power than any of the universities I have visited in this country. The library of the university has probably the most complete Egyptological collection in America. Most of the specimens in the medical museum have been transferred to the Wistar Institute of Anatomy, which is opposite the university. The institute, an imposing structure, was erected by General Wistar, in memory of his uncle, Dr. Caspar Wistar, a former professor of anatomy in the University of Pennsylvania, and was formally opened on the

21st of May, 1894. Dr. Greeman, the curator of the institute, is an enthusiast in his particular line of work. In the basement of the institute is a lot of machinery, especially designed for section cutting, freezing, etc.

The College of Physicians in Philadelphia is a model medical society. Its medical library contains 50,000 bound volumes and 19,000 unbound pamphlets, and is the second largest medical library in this country. About 300 Fellows belong to the college. It is the oldest medical society in the United States, having been instituted in the year 1787. On the upper floor is a very creditable medical museum. In the library may be seen the first medical book, published about the year 1470 by Valastus de Tarenta, and entitled "De Epidemia et Peste." One may also see in the library many interesting curios, among which may be mentioned a stethoscope used by Laennec; it is constructed of wood and looks like a large rectal syringe. There is also a thermometer supposed to have been used by Cullen; a lock of hair from the head of the immortal Jenner; a certificate granting the right to practise medicine in Venice by one of the Doges, and dated 1636.

The College of Physicians of Philadelphia, owing to its antiquity, surpasses the New York Academy of Medicine in every possible manner. The academy occupies a gorgeous structure on Forty-third street. Its library contains 40,000 bound volumes, and is open to the public daily. The main meeting-room of the Academy of Medicine is a marvel of architectural beauty. It is called Hosack Hall, and was erected as a memorial of Dr. Alexander Hosack.

The medical colleges and hospitals of New York city are very creditable and extensive organizations. Probably the best equipped under-graduate medical school is the College of Physicians and Surgeons. The post-graduate schools in New York city are the New York Polyclinic and the Post-Graduate Medical School. The latter has the advantage of better equipment. Connected with the Faculty of the Post-Graduate School is a corps of instructors numbering 123. Post-graduate instruction is a feature in New York city. The necessity for such instruction is evidenced by the large attendance of physicians from all over the country. The number of matriculates during the last session was 527; and the attendance since the opening of the school has been steadily on the increase. Success in practice comes only to him who labors. Advancement in the profession is only exceptionally attained by oddity in vestment, mannerism, or equipage. Homeopaths are admitted as matriculates to the post-graduate schools. This is a wise provision, and may do much toward weaning them from irrational dogmas which have retained their pristine vigor for more than 100 years unsullied by the progress of science. The dispensaries in New York city are numerous. Many of them are private enterprises, and furnish the specialist with an abundance of clinical material. Perhaps the largest dispensary is the German, conducted by a staff of New York's best physicians. The clinical material is prodigious. During the past year about 30,000 patients were treated at the clinic. The clinical material of the German dispensary is not used for purpose of instructing students. The building is a commodious one of brick, erected in 1883 by Mrs. Ottendorfer.

The Harvard Medical School in Boston is of brick and red sandstone, four stories in height, and is practically fire-proof throughout. At this school four years is the required course of study, at the end of which time, if the candidate has obtained an average of over 75 per cent. in all the examinations of this course, the degree of Doctor of Medicine, *cum laude*, is given. The Boston School of Medicine, a homeopathic institution, likewise extends its curriculum to four years, and confers the degree of Bachelor of Medicine, or Bachelor of Surgery. The course of instruction at the Harvard Medical School is essentially practical and laboratory work is substituted for the usual didactic lectures in anatomy, histology, chemistry, and pathological anatomy. All the laboratories are thoroughly equipped, especially the laboratories for experimental pharmacology and therapeutics and the laboratory of histology and embryology. The latter is directed by Prof. Minot, whose life work is embryology. His text-book on human embryology is a classic. Prof. Minot is a living exponent of what an American can do with all the advantages of a German professor. I mean by this, that if our government encouraged scientific work to the extent practised in Germany, the outlook for America in scientific preëminence would be very favorable. The anatomical lecture-

room of Harvard Medical School contains the tables once used by our poet physician Holmes in his anatomical lectures. The Warren Medical Museum in this school is the best private collection I have ever seen. In many respects it is superior to the Army Medical Museum. In the Warren Museum may be seen the skull and crowbar of the celebrated "crowbar case." This case is so celebrated that a description of it would prove superfluous. The corrosion specimens in this museum are exceptionally interesting. In the public park, adjoining Boston Common, is a monument erected to commemorate the discovery "that the inhaling of ether causes insensibility to pain," first proved to the world at the Mass. General Hospital in Boston, October, A. D. MDCCCXLVI." "The gift of Thomas Lee, a citizen of Boston, erected MDCCCLXVII." Will not some appreciative citizen erect a monument to the humble frog, persecuted by science for the benefit of the human race?

NEW YORK, June 19, 1894.

ALBERT ABRAMS, M.D.

REVIEWS AND NOTICES.

HOW TO USE THE FORCEPS; WITH AN INTRODUCTORY ACCOUNT OF THE FEMALE PELVIS AND OF THE MECHANISM OF DELIVERY. By Henry G. Landis, M.A., M.D., Professor of Obstetrics and Diseases of Women and Children in Starling Medical College. Revised and enlarged by Charles H. Bushong, M.D., Assistant Gynecologist and Pathologist to Demilt Dispensary, New York. Illustrated. New York: E. B. Treat. Price, \$1.75.

This is an exact reproduction, and in no sense a revision, of the edition of 1889, with the addition of a few pages of "critical remarks" by Dr. Bushong. The work was originally, and in many respects still remains, a valuable one, but reissued, practically without change, it becomes, to say the least, an anachronism.

A CHAPTER ON CHOLERA FOR LAY READERS; HISTORY, SYMPTOMS, PREVENTION AND TREATMENT OF THE DISEASE. By Walter Vought, Ph.B., M.D., Medical Director and Physician-in-charge of the Fire Island Quarantine Station, Port of New York. Illustrated. Philadelphia: The F. A. Davis Company. pp. vii, 102.

This little book is clothed in plain language, is timely, and from its moderate size and ample range of topics is admirably adapted to the general public. Quite properly, nearly half of the pages are devoted to prevention, for this branch of the subject is practically of more importance than all the rest. Allusion is made to the experience of New York in 1892, when the disease was stamped out after actual appearance, in some unaccountable way, in the city. As it could not be traced to the cases at the quarantine station, it probably was due to some infected matters thrown overboard before arrival at quarantine, which floated ashore and were picked up. It is plainly told that the cholera germs operate only in the alimentary canal, and that they must gain access through the mouth by food or drink. Persons who can learn and will exercise due care to quarantine their mouths against these germs are safe. The simple precaution of cooking everything just before swallowing is sufficient. Those who handle suspicious articles must keep their fingers out of their mouths and handle nothing that goes into the mouth until the hands have been thoroughly cleansed. A paragraph is given to the dangers of railway water-closets, and the author justly says that the dejecta of passengers should not be permitted to fall upon the road-bed without previous disinfection. Better say they should not be allowed to drop at all. At this late day it is highly discreditable to car-builders and railway managers that this filthy and dangerous practice is tolerated. There is now no disease which has become more subject to intelligent control than cholera in the hands of skilled sanitarians, with fair coöperation on the part of those endangered. We know of no better medium of this important knowledge on the part of the public than the little book here mentioned.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held July 3, 1894, the following physicians, having complied with the law and the regulations of this Board, were unanimously granted certificates to practise medicine and surgery in this State:

Maurice W. Brown, Alameda; Med. Dept. Univ. Pennsylvania, June 7, '94.
 C. E. Congdon, San Francisco; Med. Dept. Univ. Louisville, Ky., March 13, '94.
 Leon F. Garrigues, San Francisco; Med. Dept. Univ. City of New York, March 24, '91.
 Emil T. Holthusen, San Francisco; Missouri Med. Coll., Mo., March 3, '85.
 William Louis McGuire, Los Angeles; Saint Joseph Med. Coll., Mo., February 27, '85.
 Henry Cowles Miller, Santa Barbara; Harvard Univ. Med. School, Mass., June 24, '91.
 Charles C. Park, Santa Barbara; Bellevue Hosp. Med. Coll., N. Y., March 12, '88.
 Harry Smith, Los Angeles; Coll. of Medicine, Univ. of Southern California, June 1, '94.
 B. F. Springsteen, San Francisco; Univ. Med. Coll., Kansas City, Mo., March 20, '94.
 William H. Ward, Los Angeles; Coll. Phys. and Surgs., Keokuk, Ia., February 10, '63.

A certificate was refused to R. C. Saper, San Francisco.

CHAS. C. WADSWORTH, Secretary,

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army, from June 21 to July 21, 1894.

The journeys performed by First Lieutenant E. B. Frick, assistant surgeon, from Fort Townsend to Seattle, Wash., and return, on April 28, May 15 and 29, June 7 and 26, 1894, on public business in connection with the examination of recruits, in obedience to instructions from these headquarters dated April 5, 1892, are confirmed. Par. 2, S. O. 106, Dept. of the Columbia, July 3, 1894.

Major Benjamin F. Pope, surgeon, and First Lieutenant Charles Willcox, assistant surgeon, will report without delay to Colonel William M. Graham, fifth artillery, at the Presidio of San Francisco, Cal., for temporary duty in the field. Par. 2, S. O. 70, Dept. of the California, July 9, 1894.

Passed Assistant Surgeon W. F. Arnold, U. S. Navy, is relieved from further duty with the U. S. Naval Battalion at Oakland Pier, and will proceed by boat to-morrow morning to Sacramento, Cal., and report for duty with the Battalion of U. S. Marines now serving in that city. Par. 1, S. O. 74, Dept. of California, July 13, 1894.

Lieutenant Colonel Albert Hartsuff, deputy surgeon-general, medical director of the department, will proceed hence by boat to Sacramento, Cal., and carry out the verbal instructions of the department commander. Upon completion thereof, he will return without delay to his proper station in this city. Par. 2, S. O., 76, Dept. of California, July 15 1894.

Leave of absence for two months, is granted Captain Richard W. Johnson, assistant surgeon U. S. Army.

First Lieutenant Frank T. Meriwether, assistant surgeon, will be relieved from duty at Fort Logan, Col., by the commanding officer of that post, and will report for duty at San Diego Barracks, Cal.

First Lieutenant Charles Willcox, assistant surgeon, is relieved from duty at Angel Island, Cal., and ordered to the Presidio of San Francisco, Cal., for duty, relieving First Lieutenant Harlan McVay, assistant surgeon. Lieutenant McVay, on being thus relieved, is ordered to Alcatraz Island, Cal., for duty, relieving Capt. Ogden Rafferty, assistant surgeon. Capt. Rafferty, on being thus relieved, is ordered to Benicia Barracks, Cal., for duty, relieving Major Joseph B. Girard, surgeon. Major Girard, on being thus relieved, is ordered to duty at Presidio of San Francisco, Cal.

Lieutenant Colonel Johnson V. D. Middleton, deputy surgeon-general, is relieved from duty at the Presidio of San Francisco, Cal., and will report to the commanding general, department of California, for duty as medical director of that department, relieving Lieutenant Colonel Albert Hartsuff, department surgeon-general. Lieutenant Colonel Hartsuff, on being thus relieved, will report in person to the commanding general of the department of the Missouri, for duty as medical director of that department.

PROMOTIONS :

Lieutenant Colonel Joseph P. Wright, deputy surgeon-general, to be assistant surgeon-general, with the rank of colonel, May 16, 1894.

Capt. Wm. R. Hall, assistant surgeon, to be surgeon, with the rank of major, May 16, 1894.

ITEMS.

Dr. A. Huffaker has removed from San Leandro, Cal., to Brownsville, Cal.

Dr. Lorenzo Boldo has removed from Antigua, Guatemala, to Santa Ana, San Salvador.

Errata on page 423, No. 7, vol. viii, lines 35 and 40, for chloroform read chlorobrom; also on page 424 line 7.

Dr. Edwin J. Boyes has removed his offices from 1068 Broadway, to the corner of 13th and Clay streets, Gas Company's Building, Oakland, Cal.

Medico-Chirurgical College of Philadelphia.—The Board of Trustees of the Medico-Chirurgical College recently elected the following gentlemen to various chairs in that institution: Dr. Isaac Ott, of Easton, Pa., Professor of Physiology; Dr. William E. Hughes, Professor of Clinical Medicine; Dr. Albert E. Roussel, Assistant Professor of Clinical and of Practice of Medicine; Dr. Charles W. Burr, Clinical Professor of Nervous Diseases; Dr. William C. Holleper, Clinical Professor of Diseases of Children and Pediatrics; Dr. Arthur H. Cleveland, Clinical Professor of Laryngology; Dr. Edward B. Gleason, Clinical Professor of Otolaryngology; and Dr. William Blair Stewart, Lecturer in Therapeutics.